

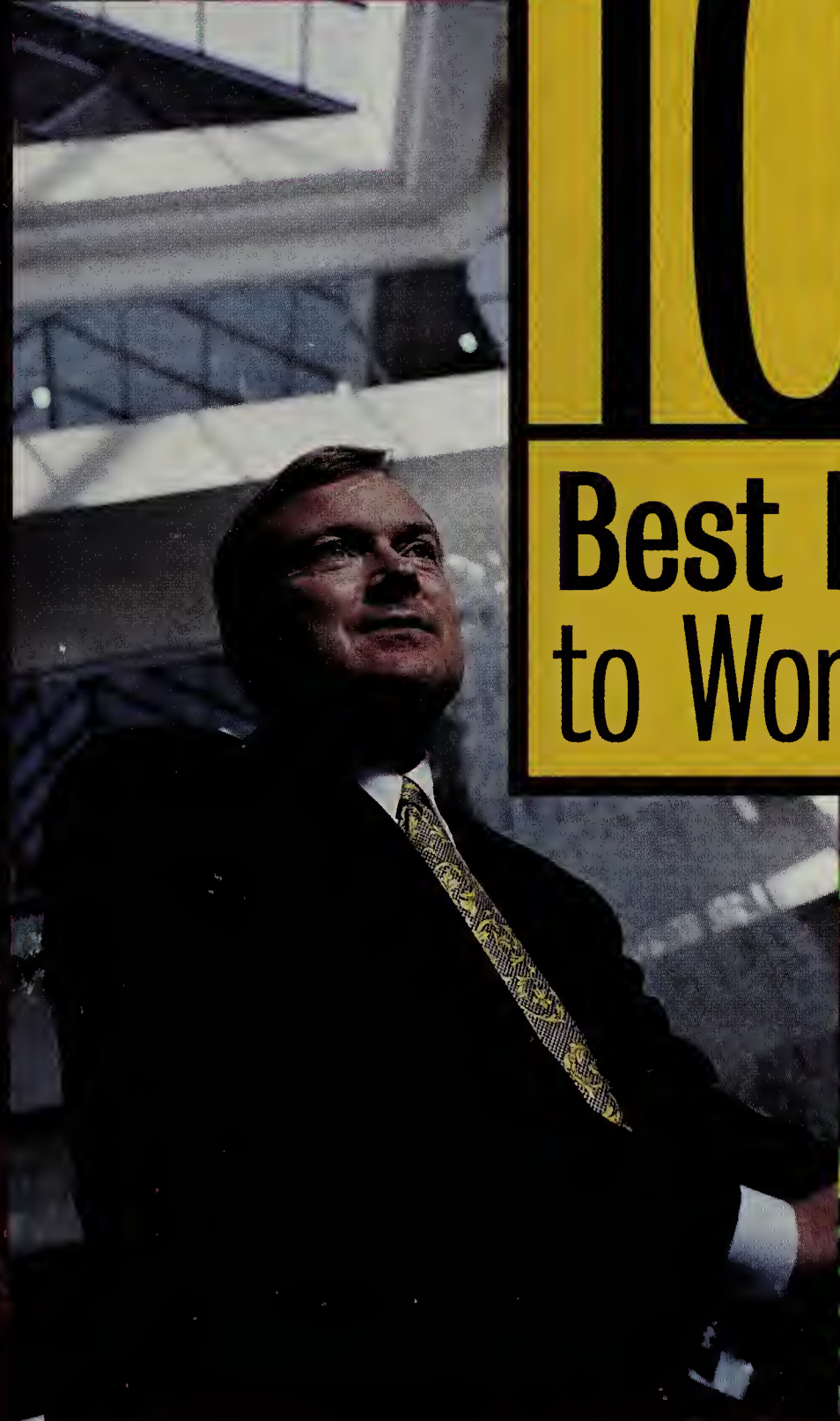
JUNE 1997

COMPUTERWORLD



100

Best Places to Work in IS



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100

Best Places to Work in IS

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Clockwise from top left: Computer Associates International, Inc.; The Home Depot, Inc.;

Price Waterhouse; Solectron Corp.;

Tech Data Corp.

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FROM THE EDITOR

All-Around Best

There's no *one* best place to work in information systems. And there's no one factor that makes an IS organization a best place to work.

Some companies may excel in particular areas more than others, but it's the subtle (and in some cases, not so subtle) and innovative ways that these companies combine business, technology and cul-

ture from jumping ship and joining your competitor with their newly acquired skills?

Contrary to popular belief, it might not be just money and technology that keeps them down on the farm. A company such as Lands' End that has more to offer in terms of a pleasant physical environment, creative training programs or incentive programs just

Contrary to popular belief, it might not be just money and technology that keeps IS staffers from jumping ship and joining your competitor's IS shop.



tural issues that make employees want to work (and keep working) at these companies.

With the constant changes in technology, staffing, budgets and corporate structure, IS organizations in all industries are now facing some of their biggest challenges.

Take ITT Corp., for instance. The 1,400-person, cutting-edge IS shop keeps up with the latest technology, has a generous training budget and stays on top of necessary technical skills. But it's not always cost-effective for ITT to retool its staff for the hottest skills, so it often outsources, rather than hiring permanent staff "every 18 months," says CIO David Starr.

And if your company does offer the latest and greatest training and technology for the IS staff, what's going to prevent those employees

might win over IS staffers.

This year's Best Places to Work companies provide a well-rounded working environment for IS employees, which means low turnover, an emphasis on training programs, diverse staffing and growth opportunities, to name a few. It's traits like these that help attract the most talented IS employees.

As Sonoco Products Co.'s Deb Hemby says, "I look forward to coming to work every day. Perhaps that's the best way to identify a good place to work."

Or, you might say that's a good way to identify a Best Place to Work.

Joyce Chutchian-Ferranti

Joyce Chutchian-Ferranti
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Best Places to Work in IS

COVER STORY



THE TOP FIVE

4 Cream of the Crop

A close-up look at the top five Best Places to Work in IS. Comprehensive charts detailing the 100 Best Places to Work, beginning on page 15

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TRAINING

Yearn to Learn

Best training programs don't just happen — they evolve

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INTERNET/INTRANET



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SKILLS

Talent at IT's Best

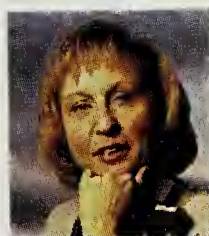
The competition is tough when looking for employees with the right skills

By Chris Staiti



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CULTURE



What Goes Around, Comes Around

Give your IS staff an ideal work environment, and you've got a dedicated team

By Candee Wilde

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The 100 Best Places by Industry

A ranking of the Best Places to Work within each industry

OFF THE BEATEN PATH

The not-so-ordinary things some companies do to keep employees motivated and happy

By Candee Wilde, Kathleen Gow, Kim Nash and Linda Wilson



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100 BEST PLACES

RANK COMPANY

1. Price Waterhouse LLP
2. Tech Data Corp.
3. Solectron Corp.
4. The Home Depot, Inc.
5. Computer Associates International, Inc.
6. Capital One Services, Inc.
7. Southwest Airlines Co.
8. Dayton Hudson Corp.
9. Wal-Mart Stores, Inc.
10. Xerox Corp.
11. American Management Systems
12. Corning, Inc.
13. Granite Construction, Inc.
14. Universal Health Services, Inc.
15. State Street Bank & Trust Co.
16. Costco Cos., Inc.
17. Household International, Inc.
18. Standard Commercial Corp.
19. Progressive Insurance Co.
20. Minnesota Mutual Life Insurance Co.
21. First Chicago NBD Corp.
22. Canandaigua Wine Co.
23. BellSouth Corp.
24. Sears, Roebuck & Co.
25. J. B. Hunt Transport Services, Inc.
26. Anixter International, Inc.
27. Delta Air Lines, Inc. (Transquest, Inc.)
28. Equifax, Inc.
29. Compaq Computer Corp.
30. John Hancock Financial Services, Inc.
31. United HealthCare Corp.
32. ReliaStar Financial Corp.
33. InaCom Corp.
34. SCANA Corp.
35. Booz, Allen & Hamilton, Inc.
36. Integrated Health Services, Inc.
37. Lands' End, Inc.
38. Adolph Coors Co.
39. Firststar Corp.
40. Circuit City Stores, Inc.
41. Liberty Financial Cos.
42. Barnett Banks, Inc. (Barnett Technologies, Inc.)
43. The Allstate Corp.
44. Levi Strauss & Co.
45. Entergy Corp.
46. 3Com Corp.
47. Ace Hardware, Inc.
48. Comerica, Inc.
49. Comdisco, Inc.
50. Consolidated Stores Corp.

By Alice LaPlante

Cream of

In order for people to be happy in their work, three things are needed, according to poet W. H. Auden: "They must be fit for it," he wrote in a 1970 essay, "they must not do too much of it, and they must have a sense of success in it."

That translates nicely into how *Computerworld* figured that the top five Best Places to Work in IS came out well, on top.

All of them — from retailer The Home Depot, Inc. to technology reseller Tech Data Corp. — invest heavily in training. They take extra care, if you will, to make sure their IT employees are fit for the challenging jobs at hand.

In addition, all of them are making concerted efforts to help employees with one of the biggest challenges our society faces in the 1990s (and beyond): balancing work and personal lives. For an example of this, take a look at what Big Six consulting firm Price Waterhouse LLP is doing to make sure employees don't feel overburdened by doing too much. And what

software giant Computer Associates International, Inc. has invested to make sure employees are comfortable — and even pampered — as they put their hearts into their work.

Finally, all five of these companies pay special attention to the fact that in today's competitive technology market, their IT employees could write their own tickets anywhere.

So it becomes essential, as manufacturing outsourcer Solectron Corp. knows, to make sure IT workers have a strong sense of their own value, worth and, in a word, "success."

Read on, and see for yourself.

TO WORK IN IS

**"We do everything we can to keep
the people we need."**

— Karen Morrell, Price Waterhouse

the crop

Christopher Weil



For Karen Morrell, John Singel and Fran Engoron of Price Waterhouse, keeping employees fully trained and addressing lifestyle concerns are top priorities

Price Waterhouse LLP

In 1996, Big Six consulting firm Price Waterhouse LLP increased its IS ranks by nearly 1,200 employees. It expects to hire at least as many this year. And it still might have trouble keeping up with how fast business is growing.

"With our aggressive growth

plans, we can't afford not to have a robust technological infrastructure," says Fran Engoron, Price Waterhouse's senior partner for intellectual capital, based in New York. Last year, although company revenue reached an all-time high of

CONTINUED on page 7

51. KPMG Peat Marwick LLP
52. Levitz Homemakers Furniture Corp.
53. The Chase Manhattan Corp.
54. McDonald's Corp.
55. CUC International, Inc.
56. Federal Express Corp.
57. Fleetwood Enterprises, Inc.
58. Pacific Bell
59. Chiquita Brands International, Inc.
60. Union Camp Corp.
61. Harley-Davidson Motor Co.
62. Sonoco Products Co.
63. Tosco Corp.
64. Williams Cos.
65. Avon Products, Inc.
66. AMP, Inc.
67. Crown Central Petroleum Corp.
68. Transatlantic Holdings, Inc.
69. UNUM Corp.
70. SunTrust Service Corp.
71. Frontier Corp.
72. CSX Corp.
73. Mass Mutual Life Insurance Co.
74. United Parcel Service
75. Continental Airlines, Inc.
76. Harsco Corp.
77. Caterpillar, Inc.
78. Honeywell, Inc.
79. First of America Bank Corp.
80. Computer Task Group, Inc.
81. Owens-Corning
82. Principal Financial Group, Inc.
83. Browning-Ferris Industries, Inc.
84. BankBoston
85. Union Electric Co.
86. International Paper Co.
87. Brooklyn Union Gas Co.
88. Maytag Corp.
89. Southern New England Telephone Co.
90. US Trust Corp.
91. Outboard Marine Corp.
92. Rite Aid Corp.
93. ITT Corp.
94. Kansas City Power & Light Co.
95. Fleet Financial Group, Inc.
96. Reynolds Metals Co.
97. CIGNA Corp.
98. Key Services Corp.
99. PNC Bank Corp.
100. 20th Century Industries, Inc.

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- Leon Wilson, PeopleSoft employee

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- Rudy Castaniada, PeopleSoft employee

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- Malna Howard, PeopleSoft employee

PEOPLE
Soft

Price Waterhouse

CONTINUED from page 5

\$5 billion, the chairman outlined a globalization plan that would at minimum double revenues by the year 2000. "When you're hiring at this rate, you can't afford the traditional learning curve as people get up to speed," Engoron says. One of her responsibilities is to leverage the knowledge assets of Price Waterhouse employees, and "technology is a critical part of our ability to do this," she says.

Price Waterhouse's IS employees fall into two categories: the internal technologists who support the needs of the 50,000 employees scattered around the globe and the growing cadre of external IS consultants who provide IT expertise to corporate IS departments for both tactical and strategic initiatives. The latter is increasingly important to the New York-based firm's revenue objectives: A full 25% of worldwide income in 1996 was derived from technology consulting services.

The biggest challenge: Keeping these employees abreast of the latest technologies, says Karen Morrell, managing director of human resources at the management consulting group, located in Atlanta. Price Waterhouse currently spends \$6,600 annually on training for each of its 3,200 technology workers and continues to up the ante. It plans to increase its training budget by a whopping 35% in 1997. The hot technologies: Microsoft's Visual Basic, Windows NT and SQL Server; Oracle; SAP; and the plethora of emerging Internet/intranet navigation and search products.

Lifestyle concerns are also key to retaining valuable IS workers. "Many consultants are on the road every week," Morrell says. "It can get exhausting."

Although internal IT employees tend to have a less strenuous schedule, they are still required to travel, and, indeed, the line between internal and external IT professionals is increasingly blurred, Engoron says.

"It's not uncommon for our internal IT workers to occasionally do client work," she says. "And whether they work inside or outside the company, they must be leading-edge technologists."

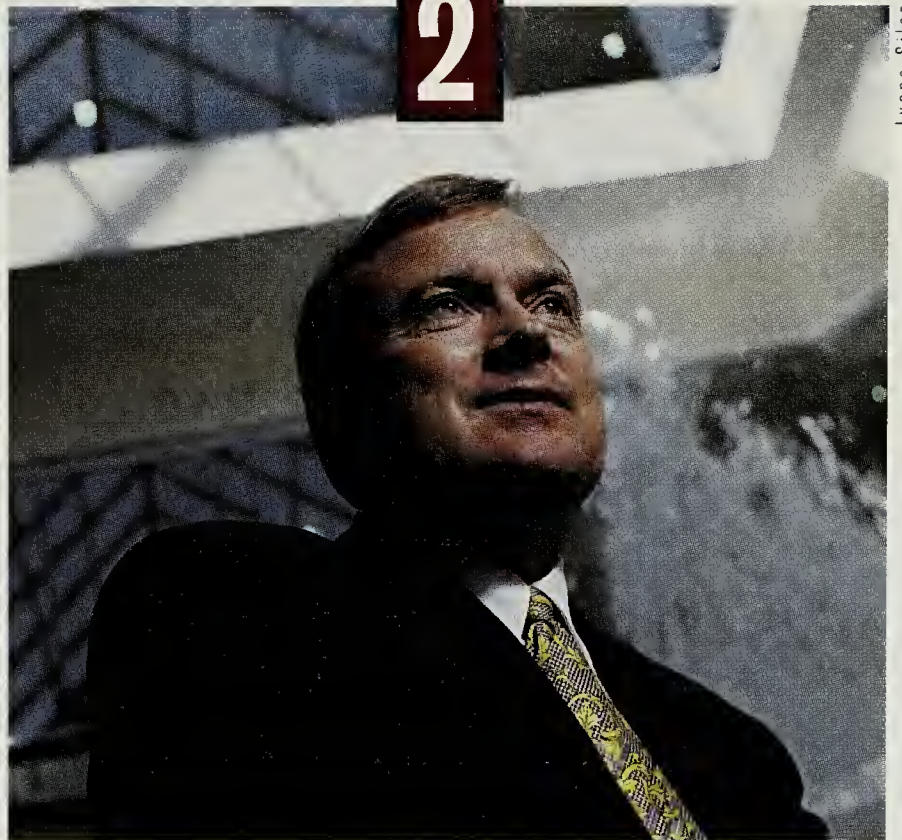
Whenever possible, the firm tries to schedule business travel so the employee is able to spend the

PRICE WATERHOUSE

1996 New hires**	1,180
1997 Staff growth*	20+%
1996 Percent promoted	30%
1997 Compensation increase*	10+%
Training days	20+

*Projected **Includes consultants

CONTINUED on page 14



CIO James Pollard isn't afraid to take a bit of advice from his Gen-X son about running a people-friendly IS group

Tech Data Corp.

James Pollard, executive vice president of operations and CIO at Tech Data Corp., happens to have a son in the IS services business, and he tries to learn from him.

"My son is one of these Generation-X systems consultants, really into the high-paying, gunslinger lifestyle. And he refuses to work for a corporate IS department," Pollard says. The reason: "My son tells me he couldn't stand the bureaucracy, that MIS groups work too much in the background, that they aren't absolutely essential to the life and death of the business."

The irony of this is that Pollard has created an IS department that, by all accounts, is exactly the opposite of the typical corporate glass house. His son would be proud.

Ranked in *Computerworld's* 100 Best Places to Work list

for the second year in a row, Tech Data, a \$3 billion computer products and services distribution company in Clearwater, Fla., devotes a full 1.1% of revenue to information technology — double to quadruple what its closest competitors invest. And the business itself is growing at a 40% annual rate.

"Our CEO gets it," Pollard says. "Of all the important things going on in this company, nothing is more important than what we do with technology."

Barbara Jessen-White would agree.

Currently manager of electronic commerce, Jessen-White came to Tech Data five years ago from Andersen Consulting, attracted to what she saw as "a growing company with a strategic future and lots

CONTINUED on page 9

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Tech Data

CONTINUED from page 7

of career opportunities," she recalls.

Assigned to a project that involved setting up electronic links with Tech Data customers, Jessen-White was instrumental in pushing for a commitment from senior management to devote more resources to strategic electronic commerce initiatives. At that point, only 8% of Tech Data's sales were generated electronically. Today, electronic transactions account for a full 40% of global revenues. And Jessen-White heads a newly created department of 14 employees dedicated to managing electronic interactions with customers. "It's been a very exciting time," she says of her tenure at Tech Data.

Mark Shepherd is another IS enthusiast. A project manager for electronic commerce applications, Shepherd initially jumped to Tech Data four years ago from another local retailer to help with Tech Data's conversion from a Tandem to an IBM mainframe environment. Shepherd now works on client/server and Internet development efforts.

Shepherd especially enjoys being close to the heart of the technological world.

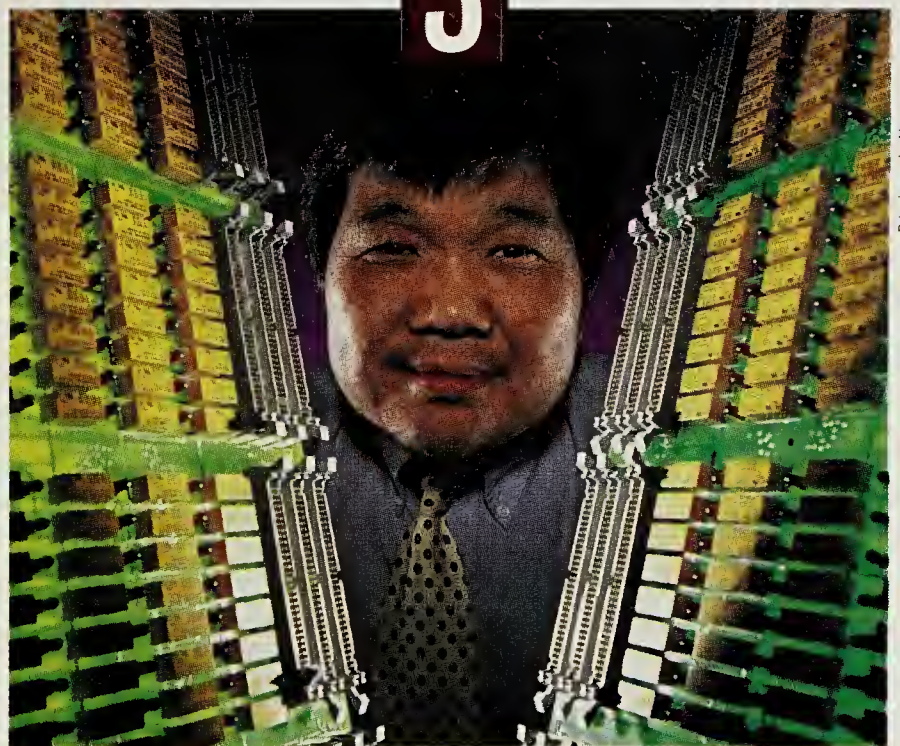
To help with Tech Data's distributed SQL Server initiative that runs on Windows NT, a dozen Microsoft Corp. technicians are currently on site, helping Tech Data employees put it all together. Shepherd says he believes this kind of on-the-job experience is invaluable. Yet Tech Data is also vigilant about making sure compensation is competitive.

He points to regular salary surveys that Tech Data performs in the IS talent marketplace — not, he stresses, just an annual event. "Every year I've been here, I've been awarded what we call an irregular salary adjustment, because the market has deemed it," he says.

And things continue to move quickly. "Talk about job security," Pollard says. "Everything we said we'd do a year ago is now complete — but now the list is twice as long." Which brings Pollard back to his son, who says he wouldn't work for corporate IS. "What he doesn't know is that not all of corporate America consists of grunt work. We strive to provide enough snap and crackle to keep our employees interested." □

TECH DATA	
1996 New hires	50 to 70
1997 Staff growth*	20+%
1996 Percent promoted	10% to 20%
1997 Compensation increase*	9% to 10%
Training days	20+

*Projected



Richard Morgenstein

CIO Ken Ouchi is committed to 'building a very, very capable IS staff' so that both staff and Solectron benefit

Solectron Corp.

Ask Roland Chan why he left his IS position at a large Fortune 1,000 company four years ago to join Solectron Corp. as director of corporate development, and he'll quickly give you his three top reasons: opportunity, opportunity, opportunity.

After all, Milpitas, Calif.-based Solectron was a rising star. An independent provider of customized integrated manufacturing services to electronics OEMs, Solectron has been growing at a dazzling, average annual rate of 62% since 1992, racking up \$2.9 billion in sales in 1996.

Today, Solectron operates more than 3 million square feet of manufacturing capacity in 13 locations worldwide, serving global clients such as IBM, Hewlett-Packard Co. and Sun Microsystems, Inc.

But four years ago, Solectron had barely begun to automate its manufacturing operations, "much less attempt any integration of administrative and factory computing" so "it was a great time to jump into full-scale development," Chan says.

He points to an enterprisewide shop-floor automation project recently completed using a suite of Microsoft Corp. desktop and server products within a client/server architecture, using Windows NT on the server, Windows for Workgroups on the client machines and SQL Server and Visual Basic to build the core application.

A dramatic shift in technology strategy during the course of this project dramatizes what Chan finds fulfill-

CONTINUED on page 10

Solectron

CONTINUED from page 9

ing about his job at Solectron "and what keeps overall IS turnover less than 5% annually despite a booming Silicon Valley that offers boundless opportunities for talented technologists."

"It was an exciting decision to be involved with. And everyone from Ken [Ouchi, Solectron's CIO] to team developers were asked for their input," Chan says.

Still a relatively small IS shop, currently employing 150 technologists, Solectron added 40 new positions in 1996 and anticipates adding 20 more this year. Ouchi approved promotions for a full third of his IS staff in 1996 and invests heavily in training on emerging technologies, particularly Internet/intranet products, which Ouchi anticipates will form a critical part of the company's future IT strategy.

SOLECTRON

1996 New hires	40
1997 Staff growth*	20
1996 Percent promoted	30+%
1997 Compensation increase*	9% to 10%
Training days	16 to 20

*Projected

Microsoft, Ouchi says, or because they see a chance to form their own companies. But he wouldn't have it any other way.

"What's the alternative?" he asks. "Keep your staff uneducated to make sure they'll stay? We're committed to building a very, very capable staff; they're getting the skills that will allow them to go anywhere. So we all benefit."

And Chan points out that working for a financially successful company — one that regularly awards stock options to employees — is a big plus. In 1991, Solectron won one of the most coveted prizes awarded to U.S. businesses: The Malcolm Baldrige National Quality Award. Solectron's 1996 sales shot to more than \$2.9 billion from \$2 billion in 1995. And the IS department is given the resources to keep up with this growth.

"At [my last company], a purchase order took days or weeks to fulfill; here, it takes hours," Chan says.

"There's a determined effort to get you the resources you need. Things move very quickly around here," Chan adds.

□

"Because of the valuable skills they acquire here, we occasionally lose people" to vendors such as Mi-



Senior VP of IS Ron Griffin (middle right) says Home Depot builds staff loyalty by offering the best

The Home Depot, Inc.

"Doing well by doing good" is certainly paying off at The Home Depot, Inc., where a commitment to providing IS employees with a challenging work environment, a balanced home life and incentives to contribute to community volunteer efforts is paid more than just lip service.

The \$15.4 billion Atlanta-based retailer has just been named one of *Computerworld's* Best Places to Work for the fourth year in a row.

How does the company retain leading-edge technologists in such a competitive employment market? Ron Griffin, senior vice president of information services, says it's similar to how Home Depot builds a loyal customer base in its retail stores: Although occasionally a competitor might hold a sale or promotion and in the short

term provide better value, in the long run, the "basketful" of what Home Depot offers its IS workers — including salary, advancement opportunities, professional challenges and other benefits — outweighs any short-term enticements by other employers.

Can competitors offer the same degree of stability and security — and ability to accumulate equity? Will they provide a chance to grow and obtain new skills? Are they places where one can speak up and be heard and make a difference? Many of these aspects of a job are as important as compensation, Griffin says.

The current most-wanted IS skills at Home Depot are DB2, Informix, Novell, Microsoft NT and Visual Basic, and a broad spectrum of Unix-related experience, par-

CONTINUED on page 13

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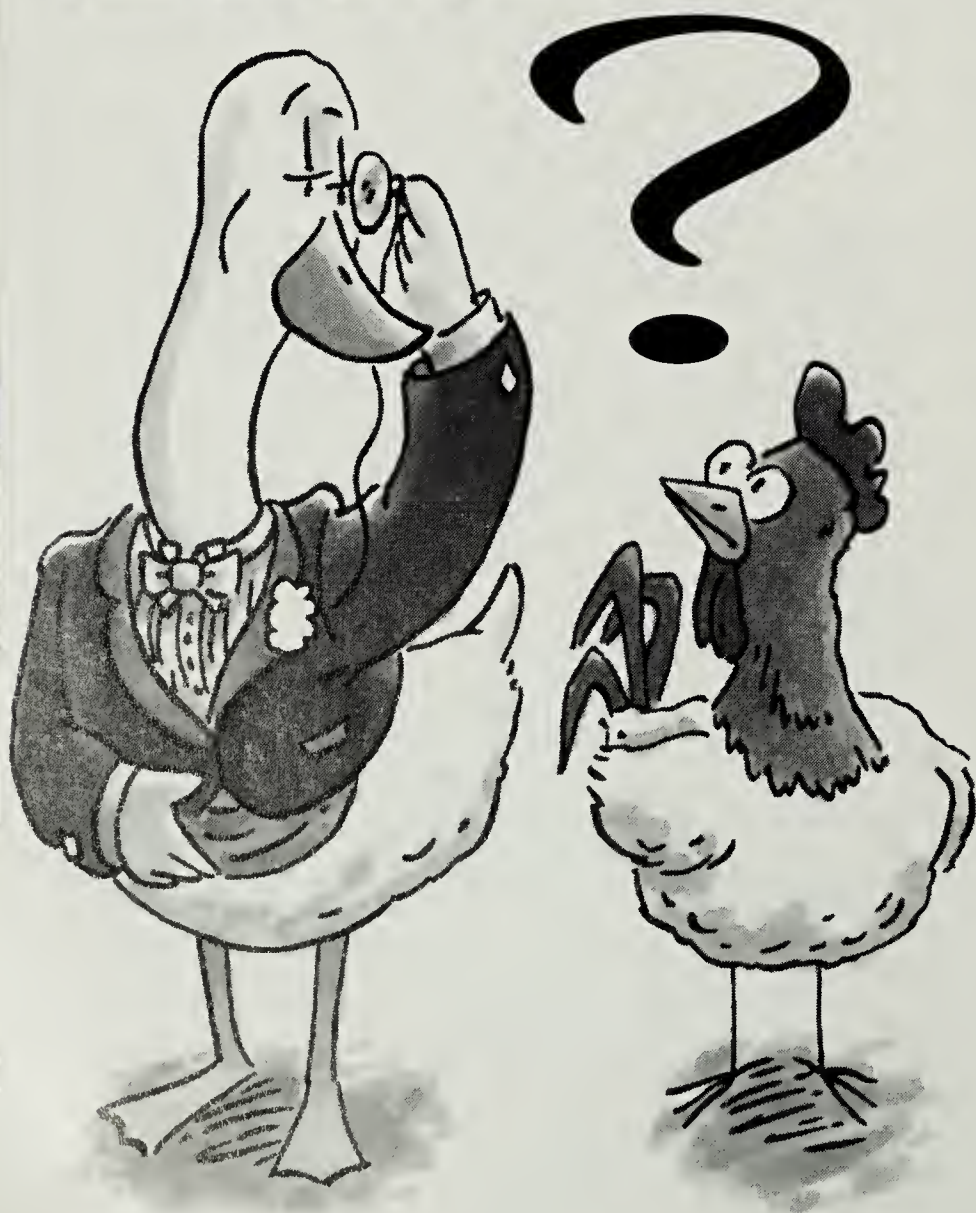
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Home Depot

CONTINUED from page 10

ticularly with TCP/IP, NFS and the HP-UX operating system.

A full 70% of IS resources are devoted to new development efforts. One recent project included building a data warehouse that consolidates data from disparate operational legacy databases to allow store managers to more quickly zero in on financial results; another successful IS initiative converted a manual returns-to-vendor process within accounting and retail operations to a client/server-based automatic method of balancing store inventory and returns and financial reporting from merchandise vendors. As a result, 30 full-time administrative positions were eliminated "but not at the expense of permanent employees." Anticipating the coming efficiencies, Home Depot had gradually moved those 30 employees to other jobs.

The culture at Home Depot is casual. Jeans and no ties are the norm. And time spent in the office on the weekend is discouraged.

"We want our people living balanced lives and encourage quality time with family and friends," he says. On the other hand, there's an exciting mix of challenge and congeniality that makes people go beyond the call of duty.

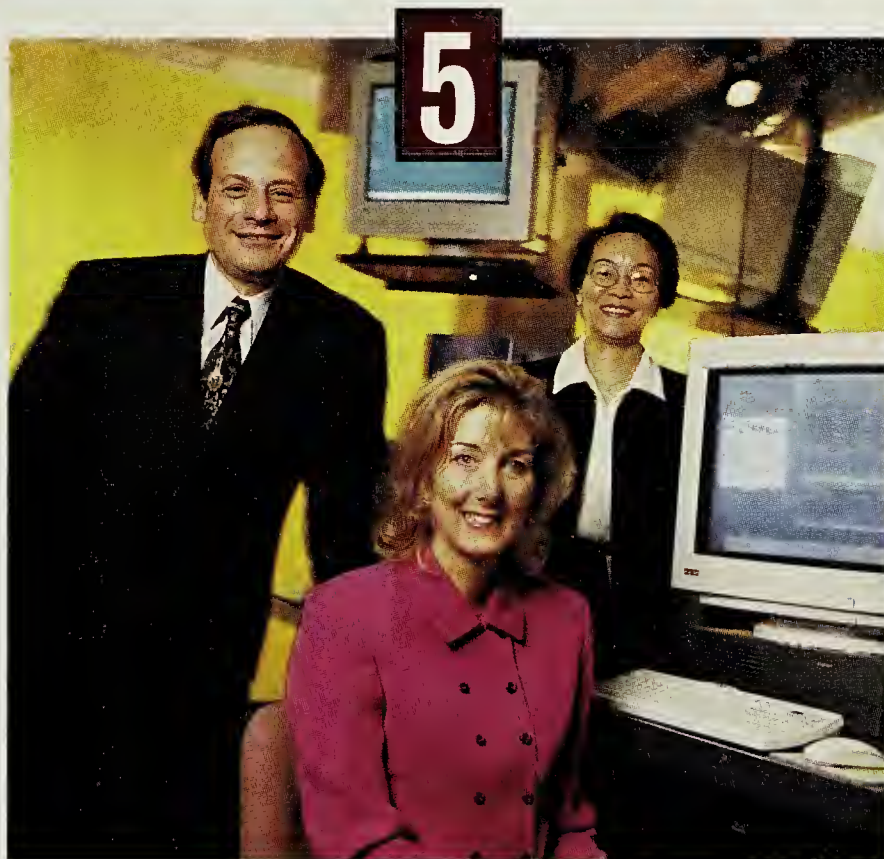
A case in point: Last year, a corporatewide conversion to Windows 95, Microsoft Office and Lotus Notes was taking all the time and effort of IS resources, so the conversion of IS was going to have to wait. "Well, our staff didn't want to wait. They came up with a way to do all the hardware upgrades — the disk drives, memory and, in some cases, processors — and software loads over a single weekend," Griffin recalls. "They began Friday at 4 p.m., and by mid-afternoon on Saturday, had all of over 500 PCs converted."

Being in touch with the core business is also critical. Every new IS worker spends a week in a Home Depot retail store: stocking inventory, bagging customer purchases, in short, learning what matters. "Our money comes from only one place. Everything we do must ultimately increase value delivered to our customers," Griffin says. □

THE HOME DEPOT	
1996 New hires	15
1997 Staff growth*	10% to 20%
1996 Percent promoted	15%
1997 Compensation increase*	10+%
Training days	11 to 15

*Projected

THE TOP FIVE



Christopher Weil

Both Jenny Lu (upper right) and Gayle Kemper (front) value CA's commitment to diversity and longevity in its work force

Computer Associates International, Inc.

Jenny Lu is finishing up her 10th year at Computer Associates International, Inc., the Islandia, N.Y.-based software giant that racked up \$3.5 billion in sales in fiscal 1996. Despite client/server development experience that would allow Lu, a programmer and project leader, to write her own ticket to virtually any other company, Lu isn't interested in looking elsewhere.

"I'm always growing," she says about working at CA, having come to the firm knowing only mainframe Cobol. "If I want to try something different, I don't have to go to another company. I can ask to be moved to a different project or to learn a

different technology."

Lu typically arrives at the well-appointed Long Island campus — which includes an Olympic-size indoor swimming pool, a state-of-the-art fitness center, on-site child care and a subsidized cafeteria — around 10 a.m., having chosen a flex-time schedule that allows her to continue to rise through CA's technology ranks while juggling family duties that include raising three young children.

Lu picks up her company-provided breakfast and jumps into her workday, which usually extends to 7 p.m. or 8 p.m., with a one-hour break for a workout at

CONTINUED on page 14

Price Waterhouse

CONTINUED from page 7

weekend at home, but "we're finding people need more than that," she admits. So Price Waterhouse is piloting what Morrell calls its "Four Nights at Home" program, where workers will be on the road a maximum of three nights per week. This program, while designed mainly to provide relief for consultants, will eventually apply to all employees.

"Our people will still be able to meet client demands and still have a life," Morrell says.

Of course, compensation is always critical. And in today's IS employment market, it's not uncommon for Price Waterhouse managers to request mid-year salary adjustments for IS staffers. "We do everything we can to keep the people we need," Morrell says.

Engoron points to Price Waterhouse's decision to "loosen up" the rigors of the Big Six lifestyle. Three years ago, the firm broke with the traditional tenure-based system for promotion and compensation and designed a competency and skill-based system.

"Before, if you didn't make partner within a given time period, you'd probably leave," Engoron says. Today, people are offered the chance to move at their own pace: They can opt to take time out to attend graduate school or take care of family, without damaging their long-term career prospects. Engoron sees valuable technology workers who had left the firm several years ago now returning because "the mix of professional challenge and personal flexibility is becoming such an important one," she says. □

REPEAT PERFORMANCE

The following companies have been on the Best Places to Work in IS list four years in a row:

AMP, Inc.
Avon Products, Inc.
Barnett Technologies, Inc.
Caterpillar, Inc.
Comerica, Inc.
Computer Associates International, Inc.
Crown Central Petroleum Corp.
Entergy Corp.
Fleet Financial Group, Inc.
The Home Depot, Inc.
Honeywell, Inc.
Key Services Corp.
Mass Mutual Life Insurance Co.
Maytag Corp.
Outboard Marine Corp.
Owens-Corning, Inc.
Reynolds Metals Co.
Sears, Roebuck & Co.
Standard Commercial Corp.
SunTrust Service Corp.
United Healthcare
Xerox Corp.

Computer Associates

CONTINUED from page 13

the gym.

"If my team is into a lot of heavy coding, we'll just keep working," says Lu, who adds that she thrives on the technical challenge, the flexibility, the chance to set her own hours and the fact that CA takes care of employees. "Lately, they've been providing hot dinners for those of us working through the dinner hour," she says.

ROOM TO GROW

Gayle Kemper, senior vice president for global accounts at Computer Associates, points out that a number of people on her team that created a sales function supporting CA's largest clients and business partners have come from the IS team.

"Many of us have been here for over a decade, and we come from every possible background: from accounting, administrative, R&D and IS," Kemper says. "We really encourage the sort of entrepreneurial thinking that allows people to challenge and 'reinvent' themselves without having to leave the company."

"It's probably not for everyone," says Russ Artzt, executive vice president of research and development, of CA's reputation for being demanding and fast-paced. "It takes a certain kind of person

to thrive here. You could get a 9-to-5 job in banking or insurance where you wouldn't feel as pressured. Our employees tend to be highly motivated. In return, we take very good care of them."

More than 900 IS workers were hired in 1996, bringing the grand total to 4,400. They each get a

COMPUTER ASSOCIATES

1996 New hires**	920
1997 Staff growth*	10% to 20%
1996 Percent promoted	13%
1997 Compensation increase*	10+%
Training days	11 to 15

*Projected **includes consultants

whopping \$15,000 annually in training, delivered through a combination of traditional classroom (25%), self-paced books or videos (25%), computer-based training (25%) and distance learning through voice, audio and satellite transmissions (25%). "The depth and breadth of the training they receive is unparalleled," Artzt says.

What Artzt looks for when recruiting people, whether experienced IS workers or recent university graduates, is a sense of loyalty and commitment. "I'm looking for a track record. For someone who sticks to things, who isn't leaving every two years to do something new," he says. "When I bring a person into CA, I'm going to invest in him or her, I'm going to take a chance, and I want to feel comfortable with making that investment." □

ALICE LAPLANTE IS A FREELANCE WRITER BASED IN WOODSIDE, CALIF.

METHODOLOGY

Computerworld surveyed the 1996 Fortune 1,000 and the 40 leading consulting firms for this year's Best Places to Work. We contacted the top information systems professional at each company and asked that person or an appropriate designated individual in that organization to complete the survey. The final selection of the 100 Best Places to Work was

based on analysis of the organization's benefits, staff changes in 1996 and 1997 and salary increases in 1996 and 1997. We also evaluated 1996 promotions, employee empowerment, percent of women and minority staff and managers, and number of days of training. Each criterion was scored separately and given equal balance in determining the final rating.

KEY: The responses to each question were scored on a 10-point scale to provide an equal weighting and to determine an overall score for the Best Places to Work.

- ★ ★ ★ ★ ★ Scores in the top 20%
- ★ ★ ★ ★ Scores in the top 21% to 40%
- ★ ★ ★ Scores in the top 41% to 60%
- ★ ★ Scores in the top 61% to 80%
- ★ Scores in the bottom 20%

1 PRICE WATERHOUSE LLP

Location: New York, NY

Industry: Professional Services, Printing, Publishing

New IS hires in 1996: 180

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★ ★

2 TECH DATA CORP.

Location: Clearwater, FL

Industry: Wholesale and Retail

New IS hires in 1996: 60

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

*Projected

3 SOLECTRON CORP.

Location: Milpitas, CA

Industry: Electronics and Electrical Equipment

New IS hires in 1996: 40

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★ ★

4 THE HOME DEPOT, INC.

Location: Atlanta, GA

Industry: Wholesale and Retail

New IS hires in 1996: 15

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★ ★

5 COMPUTER ASSOCIATES INTERNATIONAL

Location: Islandia, NY

Industry: Computer, Office and Information Services

New IS hires in 1996: na

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★ ★ ★

6 CAPITAL ONE SERVICES, INC.

Location: Glen Allen, VA

Industry: Banking, Insurance, Financial Services

New IS hires in 1996: 150

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★ ★

7 SOUTHWEST AIRLINES CO.

Location: Dallas, TX

Industry: Transportation

New IS hires in 1996: 83

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

8 DAYTON HUDSON CORP.

Location: Minneapolis, MN

Industry: Wholesale and Retail

New IS hires in 1996: 300

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

9 WAL-MART STORES, INC.

Location: Bentonville, AR

Industry: Wholesale and Retail

New IS hires in 1996: 163

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

10 XEROX CORP.

Location: Stamford, CT

Industry: Computer, Office and Information Services

New IS hires in 1996: 96

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

*Projected

11 AMERICAN MANAGEMENT SYSTEMS

Location: Fairfax, VA

Industry: Professional Services, Printing and Publishing

New IS hires in 1996: na

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

59%
of Best Places
to Work in IS companies
conduct annual employee
satisfaction surveys.

12 CORNING, INC.

Location: Corning, NY

Industry: Construction, Bldg. Materials, Metals, Glass

New IS hires in 1996: 20

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★

13 GRANITE CONSTRUCTION, INC.

Location: Watsonville, CA

Industry: Construction, Bldg. Materials, Metals, Glass

New IS hires in 1996: 0

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★

14 UNIVERSAL HEALTH SERVICES

Location: King of Prussia, PA

Industry: Health Care

New IS hires in 1996: 8

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

15 STATE STREET BANK & TRUST CO.

Location: Boston, MA

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 296

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★ ★

16 COSTCO COS.

Location: Issaquah, WA

Industry: Wholesale and Retail

New IS hires in 1996: 16

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★

17 HOUSEHOLD INTERNATIONAL, INC.

Location: Prospect Heights, IL

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 90

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★ ★



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- 65. Communications Systems/ Public Utilities/Transportation
- 70. Mining/Construction/Petroleum/Refining/Agriculture
- 80. Manufacturer of Computers, Computer-Related Systems or Peripherals
- 85. Systems Integrators, VARs, Computer Service Bureaus, Software Planning & Consulting Services
- 90. Computer/Peripheral Dealer/ Dist./Retailer
- 95. Other _____ (Please Specify)

2. TITLE/FUNCTION (Circle one)

- IS/MIS/DP MANAGEMENT**
- 19. Chief Information Officer/Vice President/Asst. VP IS/MIS/DP Management
 - 21. Dir./Mgr. MIS Services, Information Center
 - 22. Dir./Mgr. Network Sys., Data/ Tele. Comm., LAN Mgr. /PC Mgr., Tech Planning, Admin. Services

- 23. Dir./Mgr. Sys. Development, Systems Architecture
- 31. Programming Management, Software Developers
- 41. Engineering, Scientific, R&D, Tech. Mgt.
- 60. Sys. Integrators/VARs/ Consulting Mgt.

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- 11. President, Owner/Partner, General Manager
- 12. Vice President, Asst. VP
- 13. Treasurer, Controller, Financial Officer

DEPARTMENTAL MANAGEMENT

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| (b) Netware | (f) Windows NT |
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| (d) Unix | (h) NeXTstep |

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18 STANDARD COMMERCIAL CORP.Location: **Wilson, NC**Industry: **Food, Beverage and Tobacco**New IS hires in 1996: **1**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

19 PROGRESSIVE INSURANCE CO.Location: **Mayfield Heights, OH**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **95**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

20 MINNESOTA MUTUAL LIFE INSURANCE CO.Location: **St. Paul, MN**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **55**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

21 FIRST CHICAGO NBD CORP.Location: **Chicago, IL**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **122**

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★
IS staff/minorities	★
Family care	★ ★ ★ ★

22 CANANDAIGUA WINE CO.Location: **Canandaigua, NY**Industry: **Food, Beverage and Tobacco**New IS hires in 1996: **15**

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

23 BELL SOUTH CORP.Location: **Atlanta, GA**Industry: **Telecommunications and Utilities**New IS hires in 1996: **30**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★ ★ ★

89%
of Best Places
to Work companies offer
IS employees flexible hours
or work schedules.

24 SEARS ROEBUCK & CO.Location: **Hoffman Estates, IL**Industry: **Wholesale and Retail**New IS hires in 1996: **129**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

25 J. B. HUNT TRANSPORT SERVICES, INC.Location: **Lowell, AR**Industry: **Transportation**New IS hires in 1996: **45**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

26 ANIXTER INTERNATIONAL, INC.Location: **Chicago, IL**Industry: **Wholesale and Retail**New IS hires in 1996: **40**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

27 DELTA AIR LINES (TRANSQUEST, INC.)Location: **Atlanta, GA**Industry: **Transportation**New IS hires in 1996: **500**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

28 EQUIFAX, INC.Location: **Atlanta, GA**Industry: **Computer, Office and Information Services**New IS hires in 1996: **326**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

*Projected

29 COMPAQ COMPUTER CORP.

Location: Houston, TX

Industry: Computer, Office and Information Services

New IS hires in 1996: 190

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★

30 JOHN HANCOCK FINANCIAL SERVICES

Location: Boston, MA

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 92

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★ ★

*Projected

31 UNITED HEALTHCARE CORP.

Location: Minnetonka, MN

Industry: Health Care

New IS hires in 1996: 591

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

32 RELIASTAR FINANCIAL CORP.

Location: Minneapolis, MN

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 25

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

33 INACOM CORP.

Location: Omaha, NE

Industry: Telecommunications and Utilities

New IS hires in 1996: 30

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

34 SCANA CORP.

Location: Columbia, SC

Industry: Telecommunications and Utilities

New IS hires in 1996: 19

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

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35 BOOZ, ALLEN & HAMILTON, INC.

Location: McLean, VA

Industry: Professional Services, Printing and Publishing

New IS hires in 1996: 35

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

36 INTEGRATED HEALTH SERVICES, INC.

Location: Owings Mills, MD

Industry: Health Care

New IS hires in 1996: 50

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★

*Projected

37 LANDS' END, INC.

Location: Dodgeville, WI

Industry: Consumer Products and Member Services

New IS hires in 1996: 7

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★

38 ADOLPH COORS CO.

Location: Golden, CO

Industry: Food, Beverage and Tobacco

New IS hires in 1996: 18

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

39 FIRSTAR CORP.

Location: Milwaukee, WI

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 68

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

40 CIRCUIT CITY STORES, INC.

Location: Richmond, VA

Industry: Wholesale and Retail

New IS hires in 1996: 150

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

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41 LIBERTY FINANCIAL COS.Location: **Boston, MA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **20**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★

42 BARNETT BANKS (TECHNOLOGIES), INC.Location: **Jacksonville, FL**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **92**

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

*Projected

43 THE ALLSTATE CORP.Location: **Northbrook, IL**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **160**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

44 LEVI STRAUSS & CO.Location: **San Francisco, CA**Industry: **Consumer Products and Member Services**New IS hires in 1996: **200**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★ ★ ★ ★

45 ENTERGY CORP.Location: **New Orleans, LA**Industry: **Telecommunications and Utilities**New IS hires in 1996: **50**

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★

46 3COM CORP.Location: **Santa Clara, CA**Industry: **Computer, Office and Information Services**New IS hires in 1996: **200**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

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47 ACE HARDWARE, INC.Location: **Oak Brook, IL**Industry: **Wholesale and Retail**New IS hires in 1996: **30**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

48 COMERICA, INC.Location: **Detroit, MI**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **90**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

*Projected

49 COMDISCO, INC.Location: **Rosemont, IL**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **30**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

50 CONSOLIDATED STORES CORP.Location: **Columbus, OH**Industry: **Wholesale and Retail**New IS hires in 1996: **8**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★

51 KPMG PEAT MARWICK LLPLocation: **Montvale, NJ**Industry: **Professional Services, Printing and Publishing**New IS hires in 1996: **70**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★

52 LEVITZ HOME MAKERS FURNITURE CORP.Location: **Boca Raton, FL**Industry: **Wholesale and Retail**New IS hires in 1996: **4**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★

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53 THE CHASE MANHATTAN CORP.

Location: New York, NY

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: na

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★ ★ ★

54 MCDONALD'S CORP.

Location: Oak Brook, IL

Industry: Food, Beverage and Tobacco

New IS hires in 1996: 32

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★

*Projected

55 CUC INTERNATIONAL, INC.

Location: Stamford, CT

Industry: Consumer Products and Member Services

New IS hires in 1996: 40

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

56 FEDERAL EXPRESS CORP.

Location: Memphis, TN

Industry: Transportation

New IS hires in 1996: 400

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

57 FLEETWORD ENTERPRISES, INC.

Location: Riverside, CA

Industry: Motor Vehicles and Equipment Manufacturers

New IS hires in 1996: 7

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★

58 PACIFIC BELL

Location: San Ramon, CA

Industry: Telecommunications and Utilities

New IS hires in 1996: 300

Average salary increases 1996	★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★
Days of training	★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★ ★



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59 CHIQUITA BRANDS INTERNATIONAL, INC.

Location: Cincinnati, OH

Industry: Food, Beverage and Tobacco

New IS hires in 1996: 10

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★

60 UNION CAMP CORP.

Location: Wayne, NJ

Industry: Forest and Paper Products

New IS hires in 1996: 15

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

*Projected

61 HARLEY-DAVIDSON MOTOR CO.

Location: Milwaukee, WI

Industry: Motor Vehicles and Equipment Manufacturers

New IS hires in 1996: 27

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

62 SONOCO PRODUCTS CO.

Location: Hartsville, SC

Industry: Forest and Paper Products

New IS hires in 1996: 23

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

63 TOSCO CORP.

Location: Stamford, CT

Industry: Industrial Manufacturers, Oil and Refining

New IS hires in 1996: 100

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★
IS staff/minorities	★
Family care	★ ★ ★

64 WILLIAMS COS.

Location: Tulsa, OK

Industry: Computer, Office and Information Services

New IS hires in 1996: na

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★ ★
IS staff/minorities	★
Family care	★

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65 AVON PRODUCTS, INC.

Location: New York, NY

Industry: Consumer Products and Member Services

New IS hires in 1996: 45

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★★★★
Staff growth 1996	★★★★
Days of training	★★★★
IS staff/women	★★★
IS staff/minorities	★
Family care	★★★★★

66 AMP, INC.

Location: Harrisburg, PA

Industry: Electronics and Electrical Equipment

New IS hires in 1996: 26

Average salary increases 1996	★★
Average salary increases 1997*	★★
Staff promoted 1996	★★★
Staff growth 1996	★★★
Days of training	★★
IS staff/women	★★★
IS staff/minorities	★
Family care	★★

*Projected

67 CROWN CENTRAL PETROLEUM CORP.

Location: Baltimore, MD

Industry: Industrial Manufacturers, Oil and Refining

New IS hires in 1996: 2

Average salary increases 1996	★★★★★
Average salary increases 1997*	★★★★
Staff promoted 1996	★★★★
Staff growth 1996	★★★
Days of training	★★
IS staff/women	★
IS staff/minorities	★
Family care	★

68 TRANSATLANTIC HOLDINGS, INC.

Location: New York, NY

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 3

Average salary increases 1996	★★
Average salary increases 1997*	★★
Staff promoted 1996	★★★★★
Staff growth 1996	★★★★
Days of training	★★
IS staff/women	★★★
IS staff/minorities	★★★★★
Family care	★★

69 UNUM CORP.

Location: Portland, ME

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 100

Average salary increases 1996	★★★★
Average salary increases 1997*	★★★★★
Staff promoted 1996	★
Staff growth 1996	★★
Days of training	★★
IS staff/women	★★★★★
IS staff/minorities	★
Family care	★★★★★

70 SUNTRUST SERVICE CORP.

Location: Atlanta, GA

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 96

Average salary increases 1996	★★
Average salary increases 1997*	★★
Staff promoted 1996	★★★
Staff growth 1996	★★★★
Days of training	★★
IS staff/women	★★★★
IS staff/minorities	★
Family care	★★★

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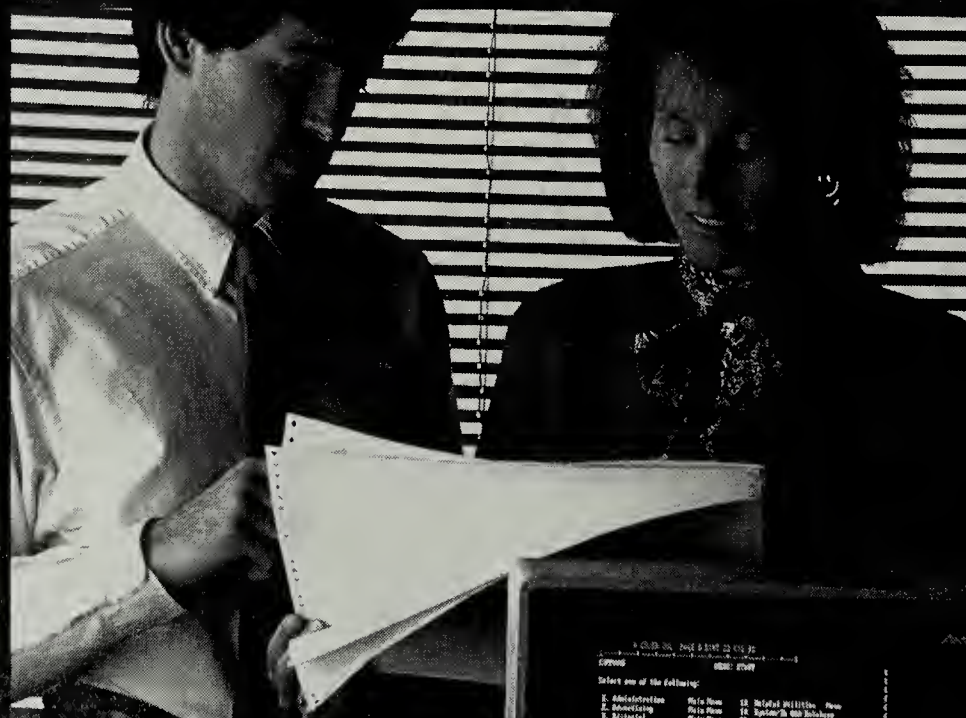
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71 FRONTIER CORP.Location: **Rochester, NY**Industry: **Telecommunications and Utilities**New IS hires in 1996: **94**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

72 CSX CORP.Location: **Richmond, VA**Industry: **Transportation**New IS hires in 1996: **86**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

*Projected

73 MASS MUTUAL LIFE INSURANCE CO.Location: **Springfield, MA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **104**

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★

74 UNITED PARCEL SERVICE, INC.Location: **Mahwah, NJ**Industry: **Transportation**New IS hires in 1996: **350**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★

75 CONTINENTAL AIRLINES, INC.Location: **Houston, TX**Industry: **Transportation**New IS hires in 1996: **4**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★

76 HARSCO CORP.Location: **Camp Hill, PA**Industry: **Industrial Manufacturers, Oil and Refining**New IS hires in 1996: **15**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★
IS staff/women	★
IS staff/minorities	★
Family care	★ ★

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77 CATERPILLAR, INC.

Location: Peoria, IL

Industry: Motor Vehicles and Equipment Manufacturers

New IS hires in 1996: 130

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

78 HONEYWELL, INC.

Location: Minneapolis, MN

Industry: Electronics, Electrical Equipment

New IS hires in 1996: 65

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

*Projected

79 FIRST OF AMERICA BANK CORP.

Location: Kalamazoo, MI

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 200

Average salary increases 1996	★ ★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★
IS staff/minorities	★
Family care	★ ★

80 COMPUTER TASK GROUP, INC.

Location: Buffalo, NY

Industry: Professional Services, Printing and Publishing

New IS hires in 1996: na

Average salary increases 1996	★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

81 OWENS-CORNING

Location: Toledo, OH

Industry: Construction, Bldg. Materials, Metals, Glass

New IS hires in 1996: 34

Average salary increases 1996	★ ★ ★ ★ ★
Average salary increases 1997*	★ ★ ★ ★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★ ★ ★

82 PRINCIPAL FINANCIAL GROUP, INC.

Location: Des Moines, IA

Industry: Banking, Insurance and Financial Services

New IS hires in 1996: 100

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

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83 BROWNING-FERRIS INDUSTRIES, INC.Location: **Houston, TX**Industry: **Waste Management**New IS hires in 1996: **20**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★

84 BANKBOSTONLocation: **Boston, MA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **150**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

*Projected

85 UNION ELECTRIC CO.Location: **St. Louis, MO**Industry: **Telecommunications and Utilities**New IS hires in 1996: **10**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

86 INTERNATIONAL PAPER CO.Location: **Purchase, NY**Industry: **Forest and Paper Products**New IS hires in 1996: **45**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★

87 BROOKLYN UNION GAS CO.Location: **Brooklyn, NY**Industry: **Telecommunications Utilities**New IS hires in 1996: **7**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

88 MAYTAG CORP.Location: **Newton, IA**Industry: **Consumer Products and Member Services**New IS hires in 1996: **34**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

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89 SOUTHERN NEW ENGLAND TELEPHONELocation: **New Haven, CT**Industry: **Telecommunications and Utilities**New IS hires in 1996: **65**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

90 US TRUST CORP.Location: **Boston, MA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **8**

Average salary increases 1996	★ ★ ★
Average salary increases 1997*	★ ★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

*Projected

91 OUTBOARD MARINE CORP.Location: **Waukegan, IL**Industry: **Motor Vehicles and Equipment Manufacturers**New IS hires in 1996: **10**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★
IS staff/minorities	★
Family care	★ ★

92 RITE AID CORP.Location: **Camp Hill, PA**Industry: **Wholesale and Retail**New IS hires in 1996: **173**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

93 ITT CORP.Location: **New York, NY**Industry: **Telecommunications and Utilities**New IS hires in 1996: **100**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★
Days of training	★ ★ ★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

94 KANSAS CITY POWER & LIGHT CO.Location: **Kansas City, MO**Industry: **Telecommunications and Utilities**New IS hires in 1996: **6**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

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95 FLEET FINANCIAL GROUP, INC.Location: **Boston, MA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **194**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★

96 REYNOLDS METALS CO.Location: **Richmond, VA**Industry: **Construction, Bldg. Materials, Metals, Glass**New IS hires in 1996: **24**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★
IS staff/minorities	★ ★ ★
Family care	★ ★

*Projected

97 CIGNA CORP.Location: **Philadelphia, PA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **236**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★ ★
Staff growth 1996	★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★ ★

98 KEY SERVICES CORP.Location: **Cleveland, OH**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **300**

Average salary increases 1996	★ ★
Average salary increases 1997*	★
Staff promoted 1996	★ ★ ★ ★
Staff growth 1996	★ ★ ★ ★
Days of training	★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

99 PNC BANK CORP.Location: **Pittsburgh, PA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **40**

Average salary increases 1996	★ ★
Average salary increases 1997*	★ ★
Staff promoted 1996	★
Staff growth 1996	★ ★ ★
Days of training	★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★
Family care	★ ★

100 20TH CENTURY INDUSTRIES, INC.Location: **Woodland Hills, CA**Industry: **Banking, Insurance and Financial Services**New IS hires in 1996: **20**

Average salary increases 1996	★
Average salary increases 1997*	★
Staff promoted 1996	★
Staff growth 1996	★ ★
Days of training	★ ★ ★
IS staff/women	★ ★ ★ ★
IS staff/minorities	★ ★ ★ ★
Family care	★

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Almost no one is from Peoria.

That's certainly the case in the corporate information services department (CIS) of Caterpillar, Inc., which is headquartered in the Illinois city of 150,000.

The 1,200-plus-person IS department recruits people from all over. "It almost always involves moving somebody," says James Miller, manager of administrative services for CIS.

As a result, CIS launched a new-employee orientation program three years ago that orients folks not only to

Caterpillar but to Peoria as well. The orientation consists of an initial weeklong program followed by Monday morning sessions for 2½ months.

While the initial program concentrates on Caterpillar, the Monday morning sessions cover both the culture of the community and that of Caterpillar. Each week, the orientation group meets at a different cultural attraction, where they typically listen to speakers and take a tour.

Some of the places the new employees visit include



Corporate information services launched a new-employee orientation program three years ago that orients folks not only to Caterpillar but to Peoria as well.

the civic center, the museum, the park district, the American Red Cross and the Carver Center, a community center.

The weeklong Caterpillar-based session also covers interesting topics. One example: "A lively and interesting discussion between the new hires and people hired in the last year and a half," says Miller. The veteran employees "talk about their experiences, the pitfalls they have seen, and they give tips."

The program is so popular that non-CIS people are routinely enrolled in it. So far, 250 CIS people have graduated from the program, as have 200 people from other departments. □

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For example, some companies offer training in project management and business issues — two skills that are increasingly coming to the fore in

online endeavors.

Overall, IS workers from programmers to managers are vying to work on online applications, which are seen as glamorous and strategic to future business.

Cross-training is also catching on at some shops. IS skills acquired during Internet work can be transferred to intranet projects and vice-versa. That's because many of the technologies, if not the business goals, are the same.



PARALLEL

INTERnet

At Avon Products, Inc. no one is more important than the cosmetics company's 2.2 million Avon Ladies (and Gentleman). Keeping those people happy shapes what IS does day in and day out, says Ron Mastrogiovanni, chief information technology officer at the Rye, N.Y., company.

And that sentiment pervades Avon's Internet plans.

For example, although Avon runs a public World Wide Web site, it doesn't sell lipstick or wrinkle cream online (www.avon.com). That's because Avon doesn't want to pick a fight with salespeople by letting Web-surfer customers place their own orders.

While people can learn about 111-year-old Avon and its make-up products at the site, only official company sales representatives can access the order processing pages. That semipublic, secured extranet went live in March. It supplements a telephone voice response system and paper scanners at regional offices that sales reps already use.

For ordinary Web surfers, Avon plans to upgrade its Web site to offer material customized according to the user's location. Avon's Web server will detect where individual users are connected to the Internet and present pages that reflect different languages,

customs and buying habits.

For example, users in Hispanic countries will see Web pages written in Spanish, with Hispanic models showing off Avon's products. Even Web page layouts will be modified to appeal to different ethnicities.

"We're not like McDonald's. We want to adapt to the cultural needs of each country," Mastrogiovanni says.

Avon, which posted \$4.5 million in sales last year, also sees a future for multimedia, a technology some IS shops find too pricey and unreliable. "If I can make a connection [with a potential customer], I want to do it. Audio,

CONTINUED on page 35

INTRAnet

Like a lot of companies, Cigna Corp. is thinking long and hard about the cost of ownership of its PCs. But rather than latch onto the much-trumpeted but unproven network computer notion, Cigna sees the answer in intranets.

The network computer, in fact, holds little appeal for Steve Andriole, chief technology officer at the 15-year-old Philadelphia insurance company.

"Why would you want it? Most people who try to sell them say they're cheaper. If you took applications off the clients and put them on the server, then it doesn't matter what machine you use [to access programs]. You will still save a lot of money," Andriole says.

Pragmatism is next to godliness at Cigna, which runs 40,000 to 45,000 PCs.

"When a vendor says we have a new [software] release, we don't think about [installing] it. It would

take a couple years to get to it," Andriole says.

That's why intranets are a high priority. Users outfitted with standard browsers can unlock data in legacy systems that IS would otherwise have to rework for Windows PCs, Apple Macintoshes and Unix workstations.

One of Cigna's key intranet goals is to methodically assess which users need access to which data, then provide only that. This kind of "disciplined segmenting" can stretch IS dollars, Andriole says.

His department sets corporate standards for end-user software and hardware, which various business units, in turn, use as a framework for applications they develop themselves.

"I'm not a control freak, but you cannot just let this stuff go crazy," Andriole says, adding that "PC" should stand for "property of the company."

As important as intranet development is, top-notch project management is more crucial. Two years ago, Cigna started a customized college-level course in project management with help from Boston University: It's called the no bag-lunch seminar, and IS workers must apply to get in.

Graduates, who earn a certificate, learn, among other things, a rigorous cost-justification method Cigna applies to all technology projects. Seventy of Cigna's 2,500 IS staffers have completed the class, with another 1,000 doing a condensed version.

First Chicago NBD Corp. (www.fcmbd.com/), meanwhile, is just fleshing out its intranet plans and hasn't fully addressed training issues.

The Chicago-based bank, with more than \$104 billion in assets, has moved more slowly in building intranets than other companies. But

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By Kim S. Nash

WORLDS



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INTERnet

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video, data, graphics — you name it,” Mastrogiovanni adds.

Fancy yourself an Internet hot shot? You’d probably be humbled at The Chase Manhattan Bank Corp. (www.chase.com). The New York bank started using the Web before Netscape sold its first browser.

Not-afraid-to-fail creativity is what Chase wants in IS employees. Consider that in 1994, Chase saw TCP/IP and some kind of universal client

front end as a way to unlock customer information stored in mainframe and Unix databases around the world, says Bill Graham, vice president of corporate Internet applications services.

Graham admits that the Web tools Chase built in-house aren’t the slickest.

“We’re a financial institution not a software house [but] we didn’t have a choice at the time,” he says. The firm is now moving to more mainstream tools from Microsoft Corp. and other vendors.

Yet the problems that the Chase-made software solved were big. Chase can now collect data on banking transactions worldwide and condense it into government-required reports faster than it could via scheduled batch reports shipped around the world on a private network, Graham says. He declined to give specifics.

Chase has tested an extranet that connects the Web sites of large car dealerships to Chase’s automobile loan unit via a hyperlink. That means

car buyers can click to Chase for information on loan terms — even an application that can be completed online. Within two minutes, the customer receives a yea or nay from the bank.

“There are some folks who just want to put their heads down and do HTML coding, and they don’t fit well in my group,” says Jon Powers, vice president of network information management. Powers says he wants to add two workers to his team of five by the end

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this year and next will see "explosive" growth in those systems, says Jeremy Farmer, senior vice president of human resources. Farmer is confident intranets can save the bank a lot of money in a variety of areas.

For example, one priority project this year is to convert First Chicago's in-house "management college" training to an intranet application. Instead of attending 40 half-day sessions at regional training centers, students (IS

One of Cigna's key intranet goals is to methodically assess which users need access to which data, then provide only that.

employees) will be able to access course material on the bank's intranet, including tests and live online discussions. And they will be able to do it from home, which isn't an option with the classroom setup.

The electronic school won't replace face-to-face learning completely. But in-

stead of meeting weekly, students and instructors will get together every month or two. The goal is to help the bank save on training costs and help IS staff save training time.

Human factors — features in applications that make them easier to use than typical user interfaces — are

already important in the intranet applications First Chicago has tested.

For instance, an employee directory offers users several different ways to search for information. You can type in text, of course, but "sounds-like" searches are also available. Say you're at a meeting where you don't know everyone, never mind how to spell names — which isn't unlikely at a company with 35,000 workers. You can look up people on the direc-

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Determine Your Future

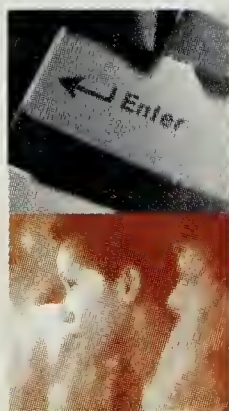
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INTERnet

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of the summer. Hint: Don't tell him you want the job unless you can show you know banking. With an MBA in marketing and 15 years of telecommunications and other technology experience, Powers seeks out people who can teach lines of business about IS — and learn from the business side as well.

For example, when Chase recently launched a co-branded credit card with Wal-Mart Stores, Inc., Powers's group had to ensure the credit card services unit was prepared to

handle an influx of electronic mail from Web users wanting more information.

"We told [the department] they would need more than a standard Lotus Notes mailbox," Powers said. A new database of frequently asked questions and answers was built to automate at least some of the process.

Good thing, too. Roughly 250 people applied for the card online the first day and credit card services overall receives 1,500 messages every week that must be routed to the right people for answers.

The Internet is driving an IS hiring binge at Lands' End, Inc., too. The \$1 billion outdoor clothing company plans to add almost 80 people to its IS staff of about 160.

The rush is on partially because Lands' End wants to get big time into electronic commerce (www.landsend.com), says Dwain Robb, manager of the specialty business support group at the Dodgeville, Wis., apparel company.

Today, online sales aren't a big part of overall sales for the company, Robb says. But that could change.

The question is how to present the Lands' End face to the Web world. Should the UK division run a store separate from the U.S. unit? Should there be one massive site with different language and currency options for users to choose?

Such business decisions must be made in concert with IS, which can guide managers on what is possible and what isn't given today's hardware, software and networking products, Robb says.

"It's fascinating to be involved in that," he adds. □

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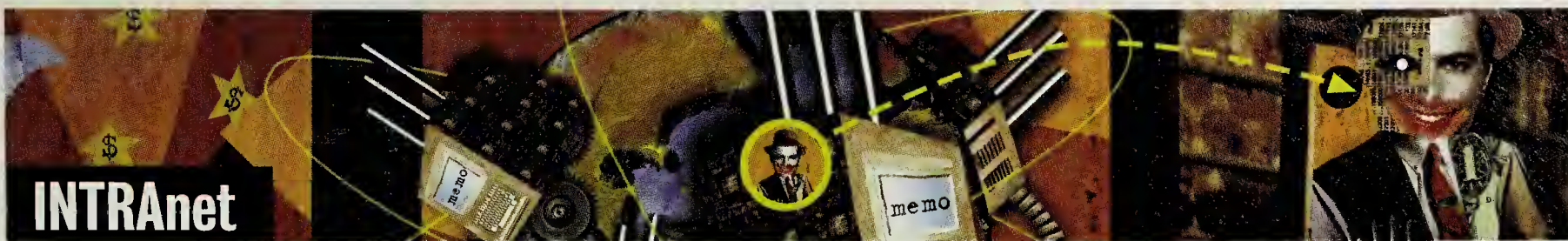
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CONTINUED from page 37

tory intranet later by typing in a "reasonable proximity of their name," explains Mark Gallagher, first vice president of technology administration at the bank.

Mouse-only searches are also included, where users can click on segments of last names, such as Andrews to Branigan.

"Some people thought it was cumbersome at first, but we know that 50% of all searches are being done this way," Gallagher says.

Similar ease-of-use con-

Human factors — features in applications that make them easier to use than typical user interfaces — are already important in First Chicago's intranet applications.

cerns are driving some intranet projects at Owens-Corning.

The big push at Owens-Corning is to meld new browser applications with existing client/server systems.

The \$3.6 billion Toledo, Ohio, company is replacing the front ends that come

with client/server financial and manufacturing applications from SAP AG and Peoplesoft, Inc. with browser interfaces, says Bob Heineman, IS global development leader.

Paperless is a watchword for Owens-Corning's intranet. By publishing human resource manuals, help desk material, management pre-

sentations and just about any other information that is normally printed on the intranet, Owens-Corning wants to cut down on companywide paper use.

"I came to the company about half a year ago and have never received a memo," attests David Frost, IS Capability Leader. "I have never signed anything, except for contracts with [outside] vendors. I don't even have an in-box." □

KIM NASH IS A COMPUTERWORLD SENIOR EDITOR, INVESTIGATIVE REPORTS.

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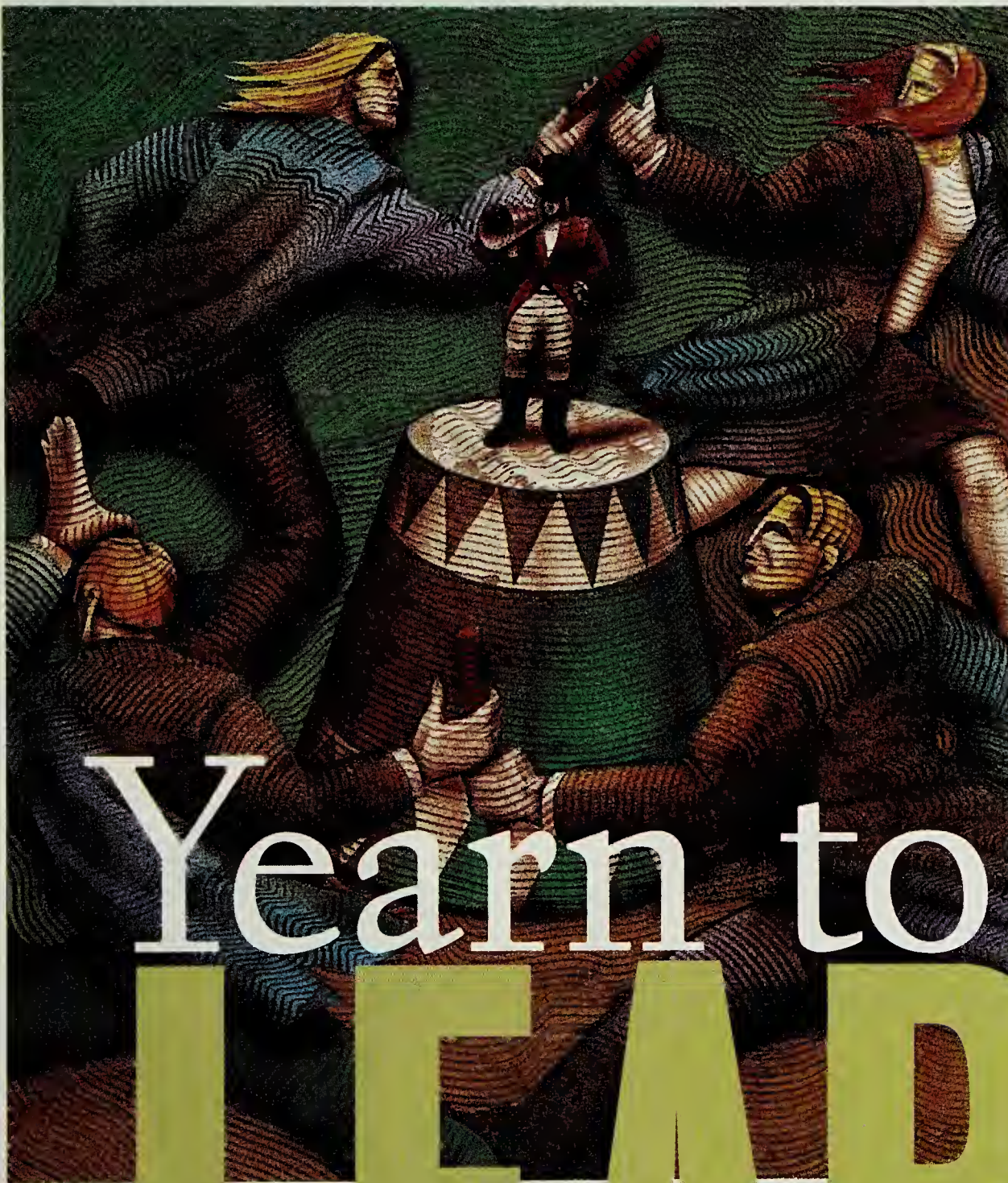
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The best training programs don't just happen — they evolve as management improves on what's already being offered

By Linda Wilson

Yearn to

LEARN

Ace Hardware, Inc. in Oak Brook, Ill., is wrestling with a difficult issue: How to reward employees for successfully completing a technical training program without setting up an expensive testing strategy.

Despite the stumbling blocks involved, the company plans to establish a program this year in which employees will earn hard dollars for completing a variety of technical training programs.

That's just one example of the commitment that companies included in *Computerworld's* 1997 Best Places to Work have made to training. These compa-

nies realize that training is an integral component of being a Best Place to Work.

But the best training programs don't just happen — they evolve as management continually tries to improve on what's already offered. The areas being worked on by companies in this year's list include extra compensation for completed training programs, just-in-time training for soft skills, as well as technical skills, and mentoring programs.

JUST IN TIME

Most companies now offer just-in-time training on the technical skills side. They send employees to classes or self-paced training right before they begin work on a project requiring a new skill. The idea: If employees aren't given a chance to practice, they'll forget most of what they learn in the classroom.

United Parcel Service is no exception. The Atlanta-based package delivery company believes in self-paced instruction to provide just-in-time training for technical skills. At its technology headquarters in Mahwah, N.J., UPS operates a self-study/library room, equipped with workstations. A full-time librarian helps employees locate CD-ROMs, videos, books and other study materials they need.

The company's use of self-study materials has grown from a ratio of 70% classroom to 30% self-study three years ago to a 50-50 ratio this year. In three years, UPS expects that ratio to be 30% classroom to 70% self-study.

Why? "It is the most

cost-effective way to do it," says Glen Holmstrom, information services human resource manager. Also, "if you do classroom instruction, you have to gear it to the slowest learner in the class," wasting the time and taxing the patience of fast learners, Holmstrom adds.

Xerox Corp. in Stamford, Conn., also emphasizes just-in-time training. So much so that Xerox stresses a just-in-time formula on the soft skills side as well as the

technical side. Employees "are given the training and then they are provided with on-the-job experiences" to reinforce what they've learned, explains John Zimmerman, employment development manager for the global processes and IT services department, much of which is centered in Rochester, N.Y.

For example: If an employee takes a communications course, he or she might be assigned to lead an opera-

tions review, which would entail both written and presentation skills. Or if an employee is promoted to project manager, he or she will be enrolled in management training.

"That's why Xerox focuses on learning instead of just training. Learning encompasses things like on-the-job experiences and other activities that are not typically understood as 'training,'" says Edith Shiebler, training manager for the IT department.

MENTORING

Another area Best Places companies are evaluating is

In most companies, there's an indirect link between training and compensation: Training is one of many factors included in a formal evaluation process. But few have linked the two directly.



mentoring. A mentoring program can be a powerful tool for reinforcing soft skills, particularly leadership skills, says Gene Raphaelian, vice president for management strategies at consultancy Gartner Group, Inc. in Santa Clara, Calif. Because soft skills can be difficult to teach in a classroom setting, behavior modeling through a mentoring program often works better.

"I have seen it work when somebody is assigned the responsibility of building someone else's leadership skills," Raphaelian says.

Nonetheless, most companies have informal mentoring programs. "We talk to about 1,200 companies a year," Raphaelian says, "and if I talked to five last year that had a formal mentoring program for leadership skills, I would be surprised."

A formal mentoring program is just what Fleet Financial Group, Inc. in Providence, R.I., plans to create. The information services department is one of a number of departments included in a corporatewide pilot mentoring program, in which man-

agers of one department will be assigned to lower level managers in another department. The company has chosen to assign mentors across departmental lines to foster "cross-pollination and idea sharing," says Dennis Rygwalski, director of systems development.

Mentoring is handled informally at Xerox, depending on what individual managers want to do. However, the IT training department currently is evaluating whether to add more structure — either through a formal program or simply the creation of guidelines, which would be available to any manager who wants to launch a program. "It is just something we are looking at now," Shiebler says. "We are not sure which way we will go."

On the other hand, UPS had a formal mentoring program but scrapped it. During a trial "seven or eight years ago," UPS assigned about 40 or 50 new employees to mentors, Holmstrom says. "Some of [the relationships] worked but not enough to

keep it going," he says. "They would get together only because they were required to. We felt it was a forced relationship."

COMPENSATION

The most difficult area that Best Places companies are looking at is whether to link

ure out how to do it.

Take Ace Hardware, for example. "We feel that because of the competitive marketplace, we are forced to do something in the technical area," says Donald Schuman, vice president of information services.

Otherwise, Ace runs the risk of training employees in a hot skill, only to see them parlay that training into more dollars elsewhere.

The plan, at least so far, is to divide each technical language, tool or other skill into not more than five levels and set compensation for each level. After employees take the required training and prove themselves competent, they'll move up to the next level.

Although Schuman would like to have a program in place this year, he still has a lot of thorny details to work out. "I don't want to get into an elaborate testing group, but without testing [the employees], how do you know they are proficient? We have to have some way of measuring them."

Even without some sort of bonus program, however, training is valuable. Without training, it's difficult for employees to grow professionally.

As Schuman explains, "Most people really want to go to training. They know it is the road to success: The more training they have, the more opportunities they have to develop themselves." □

LINDA WILSON IS A FREELANCE WRITER BASED IN GLEN ELLYN, ILL.

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employee compensation directly to training.

Most companies have an indirect link, in which training is one of many factors included in a formal evaluation process, but few organizations have linked training directly to compensation. That's primarily because it's difficult to fig-

STEP BY STEP

Learning a technical skill is a three-phased cycle, according to Gene Raphaelian, vice president for management strategies at Gartner Group, Inc.

In the initial phase, employees learn a new technology; in the intermediate phase, employees deepen their knowledge of a technology, becoming experts; and in the last phase, employees keep abreast of ongoing changes in a technology.

PHASE	DURATION	TIME COMMITMENT
1. Initial phase	6 to 24 months	10 to 30 days
2. Driving to mastery	12 to 24 months	7 to 10 days
3. Harvesting the skill	Indefinitely	3 to 5 days annually

Midwest

Includes: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

Regional stats:

Staff changes 1996: 10.5%

IS salary increases: 7%

Work at home policy: 77%

Spousal equivalent benefits: 27%

Top five places to work in IS:

1. Dayton Hudson Corp.
2. Household International, Inc.
3. Progressive Insurance Co.
4. Minnesota Mutual Life Insurance Co.
5. First Chicago NBD Corp.

West

Includes: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, Hawaii

Regional stats:

Staff changes 1996: 11.1%

IS salary increases: 5.8%

Work at home policy: 67%

Spousal equivalent benefits: 67%

Top five places to work in IS:

1. Solectron Corp.
2. Granite Construction, Inc.
3. Costco Cos., Inc.
4. Adolph Coors Co.
5. Levi Strauss & Co.

LOCATION, LOCA

The Best Places to Work



TION, LOCATION

by Geographic Region



Northeast

Includes: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania

Regional stats:

Staff changes 1996: 10.9%

IS salary increases: 6.7%

Work at home policy: 88%

Spousal equivalent benefits: 50%

Top five places to work in IS:

1. Price Waterhouse LLP
2. Computer Associates International, Inc.
3. Xerox Corp.
4. Corning, Inc.
5. Universal Health Services, Inc.

South

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Regional stats:

Staff changes 1996: 13.2%

IS salary increases: 8.6%

Work at home policy: 69%

Spousal equivalent benefits: 38%

Top five places to work in IS:

1. Tech Data Corp.
2. The Home Depot, Inc.
3. Capital One Services, Inc.
4. Southwest Airlines Co.
5. Wal-Mart Stores, Inc.

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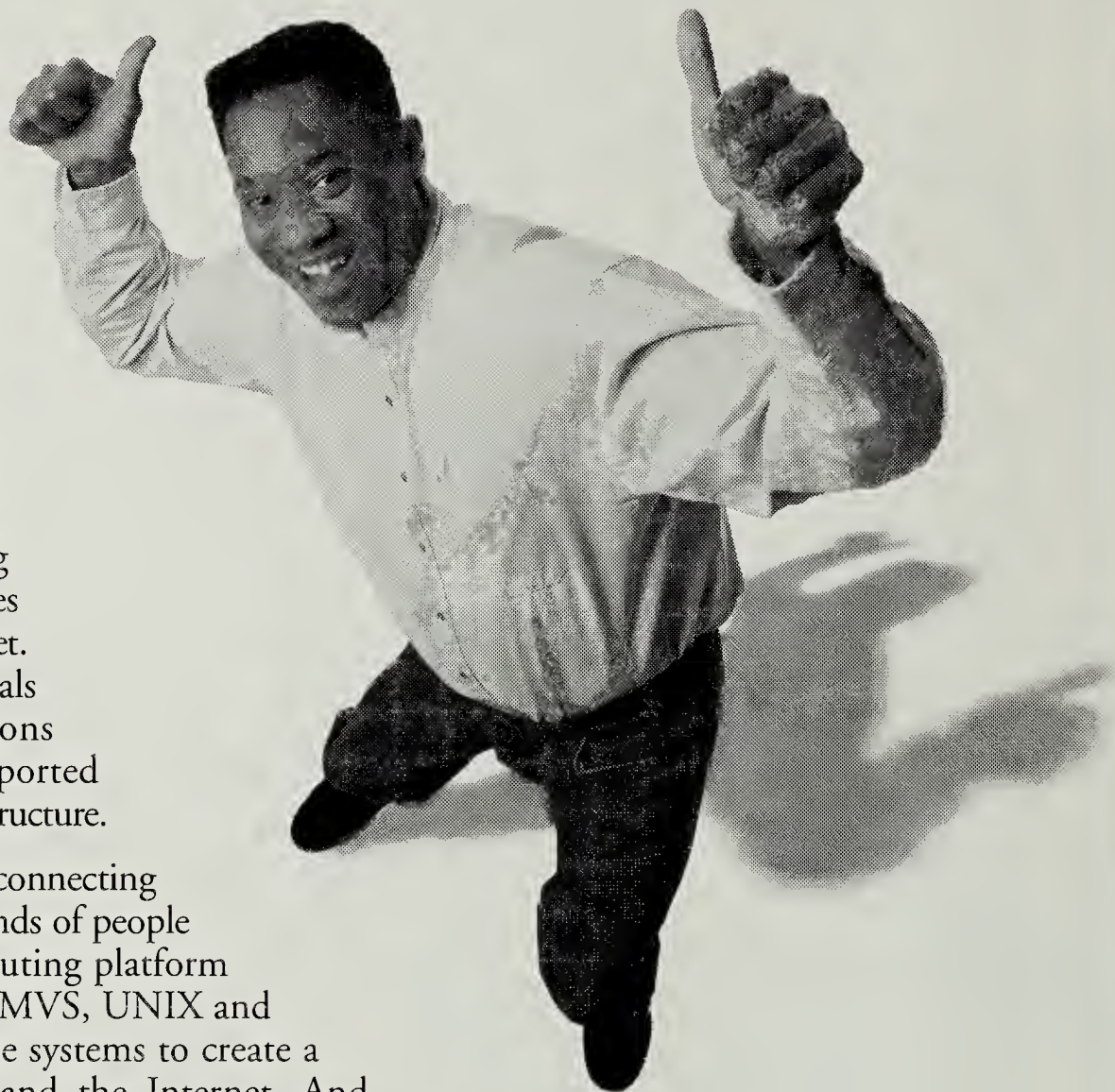
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Not only could you work

out on your lunch hour (by swimming laps in the 25-meter pool, jogging or Rollerblading on the 1/8-mile-long indoor track or taking a yoga, Tai Chi or kayaking class), but you could also bring your kids on the weekend for gymnastics or indoor soccer or leave them for a nominal fee in Kidz Corner, the center's child care service, while you work out. How about hitting the driving range, the tennis or basketball courts, or signing out a mountain bike or a running stroller for use on Lands' End property? Sound good?



"The company encourages family participation, and it offers many kids programs."

— Kai Sorenson, Lands' End

With the exception of a small percentage of events and lessons — such as scuba diving or flying — classes and activities are free to employees,

retirees and their families. The company encourages family participation, says Kai Sorenson, business systems manager for direct marketing, and it offers many kids programs, such as a six-week-long Kidz Club for structured learning and exercise for kids age 3 to kindergarten.

Sorenson's children take swim lessons at the center, which also offers programs for pregnant mothers to stay fit and fitness specialists who will develop a personal exercise plan for you. "It really is fantastic," says Sorenson, who admits that when they interview people, candidates "sometimes think we go overboard in selling our company. But it's all true." □

— Kathleen Gow

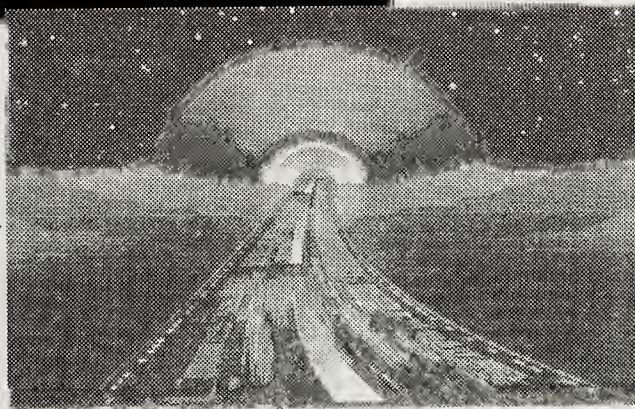
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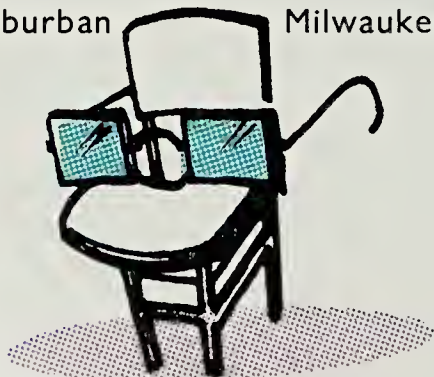


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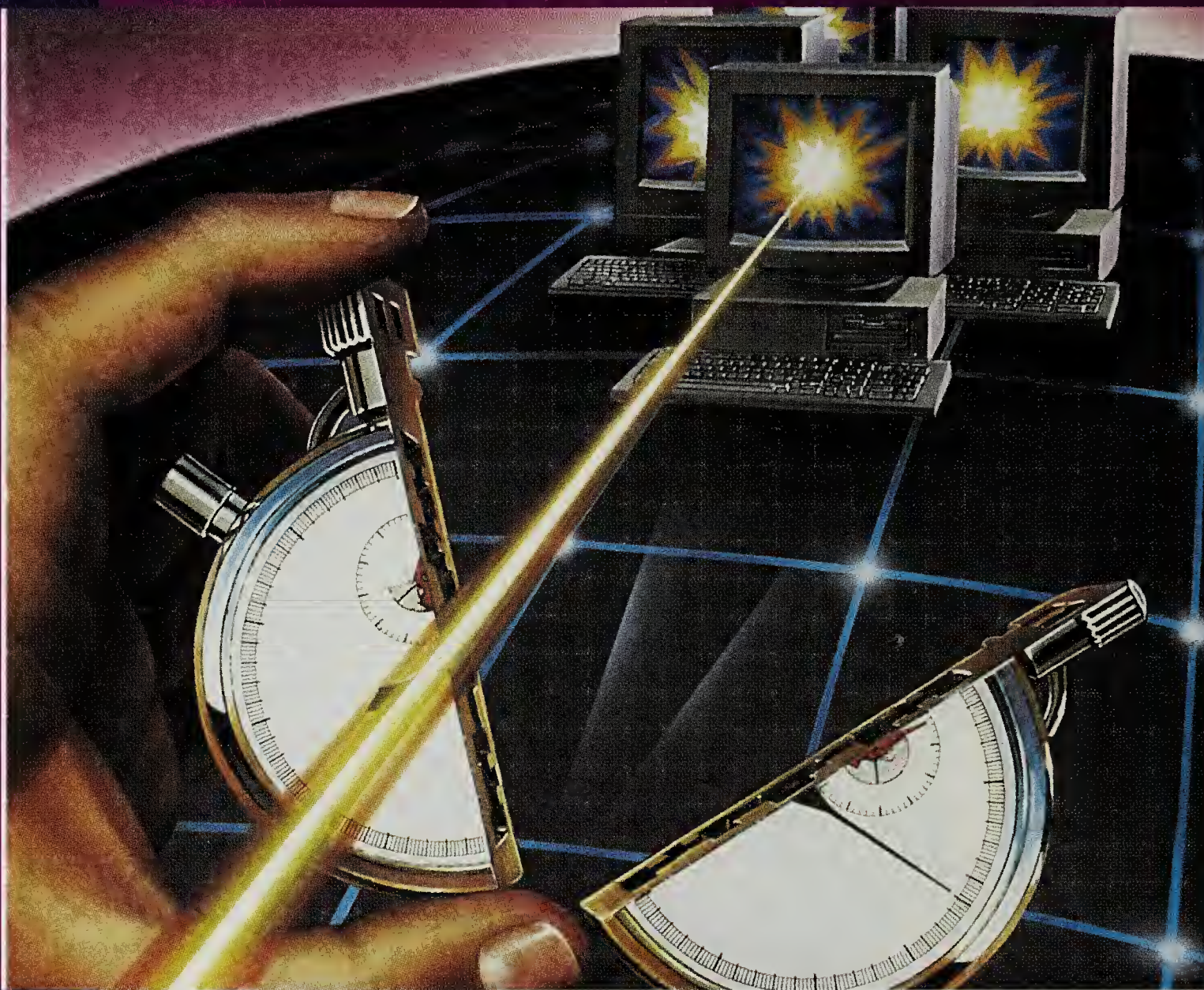
Susan Riddoch and Larry Hazen say growth at Granite Construction, Inc. has meant opportunity for employees.

By Kathleen Gow

WHEN KAI SORENSON WAS WORKING AS A PROGRAMMER AT A MILWAUKEE bank, he had to put on a suit jacket every time he left his cubicle. "It was very structured. We wrote down our hours on a time sheet. It was almost like punching a clock." Sorenson didn't enjoy that atmosphere, so he left the city to go to work for Lands' End in the small-town community of Dodgeville, Wis., where the culture is much more open

CONTINUED on page 51

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a business
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Outsourcing so employees see it as a plus

More and more, IS departments are outsourcing functional areas or turning to consultants or contractors to meet their varying needs. Whether this is seen as a motivating or demoralizing factor by internal IS employees depends on your approach, says Quinn Spitzer, chairman and CEO of management consulting firm Kepner-Tregoe, Inc. in Princeton, N.J. "Some companies say, 'Let's outsource everything,' and I think they outsource thinking as well, because of an overreliance on consultants," he says. "The IS professional sees that and starts to wonder, 'What am I doing here? I would rather be at a place where they want me to think.'"

"There's nothing wrong with outsourcing, Spitzer says, "but a company needs to have a clear policy about what they outsource." Most companies, for instance, do not want to lose control of core business skills, he says.

At Dodgeville, Wis.-based Lands' End, the IS department does a lot of work with contract programmers and has partnered with consulting firms on various projects, "but we don't outsource whole areas or functions," says John Loranger, vice president of information services.

Moreover, says Kai Sorenson, business systems manager for direct marketing at the company, "We don't typically hand off responsibility for these projects to the consultants. There's a good knowledge transfer going on." Loranger does not think his employees feel threatened by the consultants, who help handle the peak times and allow the company to maintain its record of no layoffs. Many of the consultants stay at the company from nine months to a few years. "They really become part of our team," Sorenson says.

MIS Director Larry Hazen of Watsonville, Calif.-based Granite Construction, Inc. says the company recently brought in some consultants to help keep things on schedule for the implementation of a new version of its integrated financial software. "We just didn't have the resources in house," he says. "We also have to be concerned about burnout."

Hazen adds that his employees — as the recipients of the skills transfer — saw bringing in consultants as a plus, not a minus.

— Kathleen Gow

in the 24-person IS department is 9.6 years, there has been no turnover for the last two years. MIS Director Larry Hazen attributes the department's success to an informal management structure and a culture that encourages employees to speak their minds.

"We've also gone from a \$700 million company to close to a billion-dollar com-

pany in the last several years," Hazen says, "and that has provided opportunities for employees."

The opportunity to move into different roles has perhaps been the biggest plus for special projects manager Susan Riddoch, who came to the company 13 years ago as a DP manager in the equipment di-

CONTINUED on page 53



Chris Corsmeier

The informal culture and small-town atmosphere at Lands' End are attractive to John Loranger, left, and Kai Sorenson.

CONTINUED from page 49

and informal. "It was a place I felt I fit in better, a place I felt I could make a contribution." Nine years and nearly half a dozen promotions later, Sorenson still feels the same way. After starting with the company as a second-year programmer, he was most recently promoted to business systems manager for direct marketing in the IS department.

The "Best Places to Work" companies, such as Lands' End, must be doing something right to prevent a revolving door out of IS. What is it that keeps IS employees happy? Compensation is certainly a factor, but only to the extent that it's competitive, say IS professionals and managers. Once the playing field is level, other factors take the lead: factors such as finding a good fit with a corporation's culture, a pleasant physical environment, use of leading-edge

technologies, open communication with management and opportunity, to name a few. The challenge for IS chiefs is this: No two employees are motivated by the same factors.

Still, the companies in this issue with the lowest turnover — less than 2% — share some characteristics. For starters, the best companies are proactive in keeping their salaries competitive, because they recognize the cost of losing employees, says Quinn Spitzer, chairman and CEO of management consulting firm Kepner-Tregoe, Inc. in Princeton, N.J. "If you lose a valued employee, you basically lose a year's salary in hiring, training and transition time," Spitzer says. "So if your turnover rate is 15%, you basically have a 15% loss factor."

OPPORTUNITY KNOCKS

At Granite Construction, Inc. in Watsonville, Calif., where the average length of service

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vision. When the project came up to replace the main-frame legacy system with J. D. Edwards software, Riddoch helped define future needs. This year, she will help identify where the company can add value to its systems.

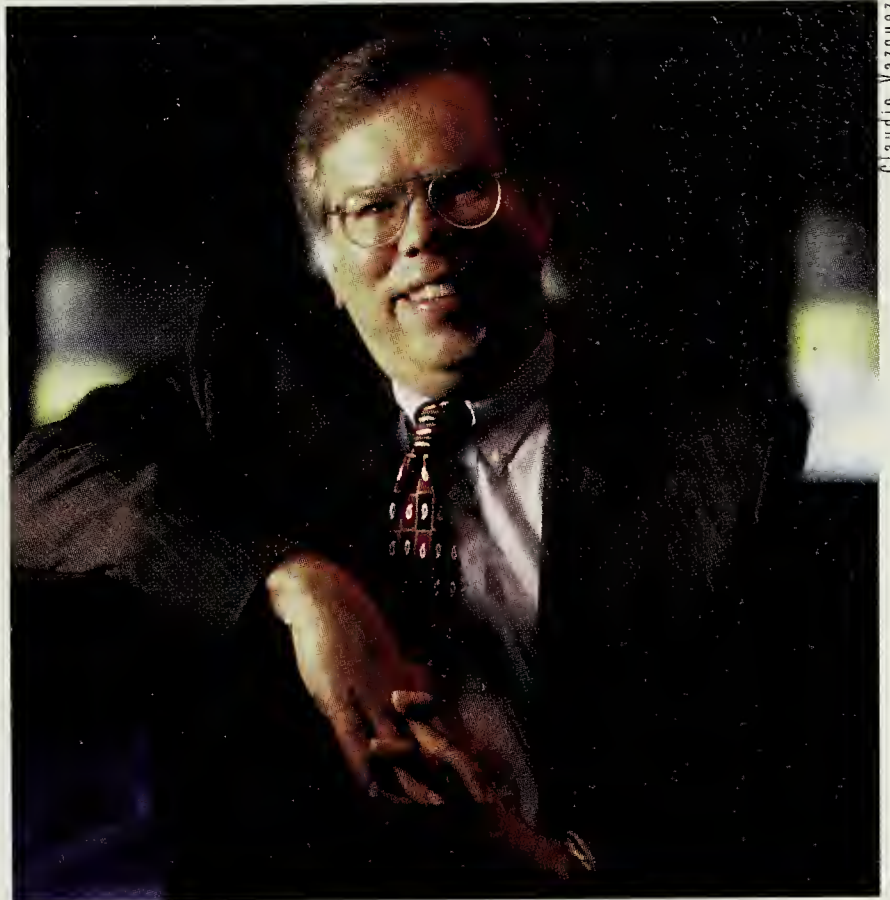
Other factors that keep Riddoch and her associates at the company, she says, are the desirable location (halfway down the Monterey Bay coast), an "outstanding benefits package" and a commitment to education and training. Not only did Granite pay for Riddoch's MBA, but when it was completed, they also promoted her to systems and programming manager. "We spend a lot of time and money

on training and on employee communications," Hazen says. The "upward feedback" program, for instance, asks employees to rate their bosses.

Surveys such as this "are effective if executive management is prepared to deal with what they hear," says Laurence Sheehan, chairman of The Cambridge Assessment Centre, a competency and aptitude assessment firm in Cambridge, Mass. "It takes a lot of courage to stand up to [negative findings] and bring about the changes called for."

Hazen was surprised one year to find out many of his staff members felt he wasn't soliciting enough feedback from them in the area of long-

CONTINUED on page 55



Keeping turnover low is a challenge in a large organization, says Dennis Bowman, CIO and vice president at Circuit City Stores, Inc.

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CONTINUED from page 53

range planning. Nor did they feel there was enough information being exchanged between departments. Hazen responded to their issues and added both a weekly staff meeting and an annual off-site meeting.

Riddoch can foresee no cause to look for a job elsewhere, not unless the environment at Granite changes drastically. "If I was in a situation where I felt my opinion didn't matter, or if I had to do the same thing year after year or if the company weren't open to considering new technologies — I wouldn't be here." After thinking for a moment, she adds: "Or if they moved the

company to Wisconsin."

Which just goes to show that one woman's punishment is another man's reward. Direct marketer Lands' End, Inc., with only one person out of 136 leaving the IS group in 1996, attracts some of its staff because the company is located in the quiet Wisconsin community of Dodgeville. In this company that has never had an IS layoff, the average length of service in the department is 10 years.

"Dodgeville is small-town USA, and I believe that helps us in having low turnover," says John Lorange, vice president of information services. "We're drawing people who do not want a city environment."

STICKING AROUND

Best Places to Work with the lowest turnover in 1996

BellSouth Corp.

Caterpillar, Inc.

Circuit City Stores, Inc.

Costco Cos., Inc.

Fleetwood Enterprises, Inc.

Granite Construction, Inc.

ITT Corp.

Lands' End

Union Electric Co.

* In alphabetical order

Attracting and hiring candidates who fit your corporate culture is the first step — and an important one — in keeping employees happy and turnover low, Sheehan says. Companies that have successfully kept turnover low are

those that can identify the behavioral attributes they're prepared to reward and those that are not tolerated, Sheehan says. "They then go the extra distance as they're hiring to communicate that message to their [candidates]," he says, as well as to determine, for the company's sake, if the candidate will fit in.

What if the candidate fits your position technically and functionally, but you suspect their motivational needs don't mesh with the corporation's? "You've got to be very, very honest," both with the candidate and with yourself, Sheehan says, because mistakes are expensive. Whether it's attracting or keeping employees, Lands' End is forced



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to stay competitive with local markets or risk losing people, says Loranger, but it's the culture, not the money, that he believes keeps staff there.

Probably the second most important thing to Lands' End's Sorenson is the company's use of leading-edge technologies, such as parallel databases, data warehousing, EDI and the Internet. "That makes the job exciting," he says.

STAFF SIZE COUNTS

Maintaining low turnover, arguably, is easier in some environments than others. "In a smaller organization, you can provide more of a personalized leadership model that everyone can see, feel and touch," says Dennis J. Bow-

man, vice president and CIO at Circuit City Stores, Inc. in Richmond, Va. Bowman heads up the consumer electronics and appliance retailer's 700-strong IS department.

Bowman faces the challenge of a geographically dispersed work force divided between five buildings, which "makes it more difficult to establish a common culture or esprit de corps," he says. Plus, when you are under pressure for fast growth and adding 160-plus IS staffers in a year, Bowman says, "it is difficult not to make some mistakes. Some people just don't end up being suited for the job."

"Size is always likely to affect turnover to the degree you manage its scope," says

"If I was in a situation where I felt my opinion didn't matter or if I had to do the same thing year after year — I wouldn't be here."

— Susan Riddoch
Granite Construction, Inc.

Kepner-Tregoe's Spitzer. "It is much better to manage it like 50 10-person operations than to manage it like a 500-person operation because there's a natural tendency to get more bureaucratic as you get larger."

Bowman came to a similar conclusion last year and changed the structure of the

development side of his organization — about half his people — from a large, functionally-oriented organization to smaller, business-oriented teams. Bowman says IS turnover has started to drop — from 10.6% in 1995 to 9.38% in 1996 — and he doesn't feel they've seen the full effect yet.

Whatever a company's size, environment and accompanying challenges, there are any number of ways for it to try to keep its staff happy. "The best businesses," Spitzer says, "work feverishly to try anything to show how they value their employees." □

KATHLEEN GOW IS A FREELANCE WRITER
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Insuring diverse roles

Cigna Corp. makes a big effort to boost women's careers. The Philadelphia insurer offers mentoring programs for women, for example, and encourages participation in industry groups such as the Financial Women's Network. Diversity councils in Cigna's 11 units help ensure women and minorities are treated fairly and represented well in key projects. And a human resource program launched last year holds managers accountable: Up to one-quarter of a manager's bonus is tied to "diversity results."

Carolyn Szalkowski, who

manages a group of 10 IS workers — five women and five men — has participated in a group created to let women voice worries and problems related to work.

The most common issue the original monthly meetings tackled was "insensitivity from a male superior" about the full-time commitments many women have outside their jobs to family, says Szalkowski, who is vice president of policyholder services systems at Cigna Property & Casualty Co. The monthly group no longer exists, but outgrowths operate in Cigna

OFF THE BEATEN PATH



Just interpreting various expressions can make all the difference.

Mickey Garcia, Cigna

units nationwide.

Mickey Garcia, a human resources consultant who recruits for Cigna's IS division, has learned a lot about cultural differences from interview-

ing people with various backgrounds. Just interpreting various expressions can make all the difference, she says.

Garcia formerly chaired a diversity group at Cigna's Voorhees, N.J., office, where 900 people of roughly 30 different nationalities work. The group tried to tackle diversity differences in a positive way — by surveying the staff to find out what they wanted in terms of diversity recognition.

As a result, the office began promoting holidays celebrated by other heritages and flying flags to represent all the nationalities at work there.

Participating in groundbreaking diversity work "has been a tremendous advantage for my career," Garcia says. □

— Kim S. Nash

Philip Anderson

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Diana Whitehead, left, CIO at Pacific Telesis and Pacific Bell, serves as a mentor for Bree Bowman, executive director of the company's technology services group

DER bender

By Leslie Goff

**It's a time of
change for IS,
and that means
more opportuni-
ties for women
than in days past**

BREE BOWMAN RECALLS THE DAY, IN 1987, when her male supervisor at the Pacific Bell data center she was working in told her he wouldn't move her into a data communications center management job, where she would have to negotiate with union officials and workers, if she were the last woman on earth.

"He said that if I spent five minutes with the union, I'd be in tears," she says, "only he wasn't that polite about it."

When that manager moved on a month later, Bowman put

her request in again with his replacement, also a man. He, too, was skeptical, but he was open to her enthusiasm for the challenge: to raise the morale and boost the efficiency of a team of 158 surly, burly datacom technicians. She got the job and still considers the turnaround she engendered at the Oakland, Calif.-based center her professional high point.

Today, Bowman, 36, is executive director of the technology services group at Pacific Bell in San Ramon, Calif., overseeing a staff of 300 people. In her organization and those of 9 other companies in *Computerworld's* Best Places to Work survey, women make up 50% to 74% of both IS management and overall staff and are actively sought after as project team members.

The tide has turned since Bowman began her management rise. But her struggle to gain credibility illustrates that the challenge women have faced in IS has not been convincing their superiors they were as technically competent as their male colleagues, but

that they could handle leadership responsibility.

With the advent of distributed computing, however, a new culture has evolved in IS that inherently values the "soft skills" women are perceived as bringing to the workplace. The increased emphasis on needs analysis, teamwork, methodical project management, close cooperation between IS and business units and cross-functional skills has made IS a much friendlier environment for aspiring women than it was in the glass-house data processing era.

"Before, IS was a real command-and-control environment. And today, it's much more collaborative and teams-driven. And that requires a diverse leadership team," says Diana Whitehead, CIO at Pacific Bell, and Bowman's mentor.

Women who work in the *Computerworld* Best Places to Work companies that have a large proportion of female IS staff and managers note that the alignment of business and IS has created an environ-

CONTINUED on page 63



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.PSECT DATA RW
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3$: .ASCII "MD5"
.PSECT DATA R
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.PSECT DEAL RW
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.LONG MTA01000
.LONG P$2
.LONG 1
:00300 EXIT
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GOTO $00000
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ment blind to gender. The overwhelming demand for applications development, implementation and support has fostered equal IS opportunity in the '90s.

Although women at the top levels of IS say they still occasionally encounter some of the old resistance to women in leadership positions, as they look out across their organizations, they see a far different picture than the IS ranks they came up through.

"I think the women coming into IS now are not as worried — if at all — about discrimination," says Linda Reino, CIO and assistant vice president of information services at Universal Health Services, Inc. in King of Prussia, Pa. "I don't think they have to worry about playing down and dressing down the fact that they are women. I think they are a little more free to express themselves. And I think they feel equal and feel that the world thinks they're equal."

MENTOR MAKES DIFFERENCE

Diana Whitehead joined Pacific Bell right out of college, in 1970, and moved into its IS department in 1976. At that time, only one woman had a management position, and even when women slowly started to advance, they were often reluctant to bring other women along with them.

When Bree Bowman, who would become her protégé, joined the company a mere six

years later, in 1982, things had already started changing. She was given supervisory responsibility as a college intern, put in charge of an all-male team of Western Electric technicians on a project to wire a critical new data center.

Whitehead says PacBell's IS organization was generally receptive to women in staff positions in the late '70s. But the real shift in women's ranks came after a consent decree against AT&T in the early 1970s, which then still owned the Bell operating companies, that required the company to implement fair hiring practices and create equal oppor-



"Now I see more room for women to express opinions that are different."

— Diana Whitehead, Pacific Bell

tunity environments for women.

"Because of the decree, women who may have been passed over before were re-evaluated and given a fair shot," Whitehead says. "And we had key leaders in IS who had a view that it didn't matter if you were a woman."

Both women benefited from the changing climate: Whitehead is CIO for both parent company Pacific Tele-

sis and subsidiary PacBell, and Bowman is one of her 11 direct reports.

Yet each says that even though PacBell's culture was relatively progressive, they felt they had to work harder than their male colleagues to get ahead in the organization. Moreover, in the early years of her ascension, Whitehead estimates that her salary was \$200 to \$300 per week less than those of her male peers.

"We had to get As when the men could get by with a B or B+," Whitehead says. "But I never sensed, once I began to get promoted, that there was any feeling of resentment or discrimination."

"If you look at women in my age group, we were well-liked and well-mentored by the male leadership here, and we probably tried to behave like them and share their opinions," she explains. "But now I see more room for women to express opinions that are different."

Bowman says she had it easier because of women like Whitehead, whose commitment and leadership style helped level the playing field for women in the organization, and who always was willing to extend a hand personally, taking time out to offer feedback and share behind-the-scenes news about the IS department's inner workings.

"I got an inside view of the male world from her," Bowman says. "From a business perspective, she's a real pioneer. She told me, 'Always speak with data. Don't get emotional, speak with the facts.'"

The facts never hurt, but in the frenzied business

AT THE TOP

Companies with more than 50% female IS managers*

Adolph Coors Co.

BellSouth Corp.

Chiquita Brands International, Inc.

Dayton Hudson Corp.

Firststar Corp.

Household International, Inc.

Pacific Bell

Standard Commercial Corp.

Universal Health Services, Inc.

* In alphabetical order

telecommunications environment of the late 20th century, the opportunity for women to contribute is at a peak. Emotion, creativity, divergence of opinion and flexibility are hot commodities.

"What I really notice in my organization is that the men want women in leadership positions and seek them out, because they want the diversity of opinion," Whitehead says.

SKILLS COUNT, NOT GENDER

At Coors Brewing Co. in Golden, Colo., Brenda Davis says she has never personally experienced gender bias. Davis, Coors' director of applications development in the information technology group, spent the early part of her IS career in manufacturing, oil and banking — traditionally iron-clad male bastions — but she is unscathed.

"I've always been lucky. I've just never been in an organization where there were problems for women, which is surprising since those industries tend to be more male-dominated," she says.

Davis joined Coors six years ago, and although there were no female directors or

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managers, and far more men in the department than women, "I didn't have to work harder or face more difficult obstacles than the guys," she says. "I think some of the other women back then may have felt that way, but I found that everything was very results-based."

Recognizing that her experience is uncommon, Davis contributes to the Executive Women at Coors initiative to help facilitate women's careers at the company, which she says has diversified its overall work force in the last several years. She believes mentoring is important to anyone moving up and credits the lack of gender bias in Coors' IS de-

partment to the CIO, Bob Sell, and his willingness to mentor her and others.

"I do believe that sponsorship is an important key, and Bob has always sponsored me," Davis says. "Gender just doesn't enter his mind; he sees people as people and looks for whoever has the skill set he needs."

Sell joined Coors about seven years ago and granted Davis' first request for a management position. Since then,

"I think the company places more value on diversity than it used to."

— Brenda Davis, Coors

the ranks of women in the company's IS organization have swelled; women now fill about half the staff and management positions.

"We've certainly had a pretty big change in the numbers," Davis says. "I think the company places more value



on diversity than it used to.

JUGGLING CAREER, FAMILY

Marian Hinkleman and her husband are experiencing an empty nest these days, with their two children out on their own. But the IS project manager at Firststar Corp. in Milwaukee, says that as her kids were growing up, she was constantly torn between her job and home.

Hinkleman has spent her career on call. She carried a beeper before it was in vogue.

"My husband traveled a lot, and I can remember getting beeped and bundling my kids up in the middle of the night and taking them to work before we had home

CONTINUED on page 66

Patricia Barry Levy

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CONTINUED from page 65

computers," Hinkleman recalls. "And looking back, that seems kind of silly, but that's what we did."

Aside from factoring into her responsibilities as a parent, her gender has not made a difference in her opportunities or her credibility with peers, Hinkleman says, largely because she hasn't tried to climb "the imperial ladder." She has opted to stay on a technical track rather than move into IS management.

"Being a project manager is a different niche role than trying to become a department manager," she says. "I do know women who find it very difficult to get through the glass ceiling."

Men hold the top seven IS positions at Firstar, but below the senior levels, men and women are equally distributed throughout the organization, Hinkleman says. Despite the balance, she says she still finds some sensitivity about gender among the staff, such as when her hiring of three male consultants caused a stir at the water cooler.

"I called them 'The Three Wisemen' after that," she quips. "Actually, the last few hires before them and after them were women, but since I brought the guys on all at once, as a group, it was really noticed by the women in the department." □

LESLIE GOFF IS A FREELANCE WRITER
BASED IN NEW YORK.

GET CONNECTED

Here are some listings for women online

IS RESOURCES

The Ada Project: Tapping Internet Resources for Women in Computer Science
www.cs.yale.edu/HTML/YALE/CS/HyPlans/tap/tap.html

Association for Women in Computing
www.halcyon.com/awc/

Cybergrrl Network
www.cybergrrl.com/

The 1997 Grace Hopper Celebration of Women in

Computing
www.systems.org:80/hopper/

Women in Computing Newsletter
www.wcmh.com/oc/wic

Women In Technology International
www.witi.com/

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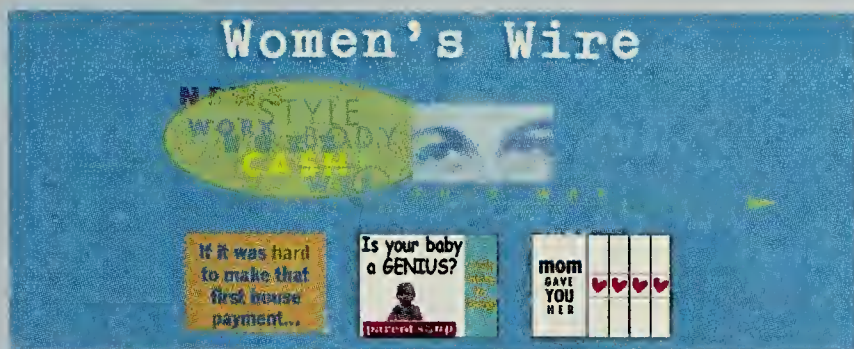
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www.bizwomen.com/

Women's Professional Directory

www.womensdirectory.com/

WWomen's Business Women WebRing

www.wwomen.com/webring_biz.shtml

DISCUSSION LISTS

For instructions on how to subscribe to the following lists, and to see a broader selection of gender-related electronic forums:

www.unix.umbc.edu/~korenman/wmst/forums.html

Afro-Techies

AFRO-TECHIES-REQUEST@PERSEPHONE.HAMPSHIRE.EDU

Use the word 'subscribe' in the message line. For black women in technology.

Spiderwoman

SPIDERWOMAN-REQUEST@AMAZONCITY.COM

Send the message, 'Subscribe Spiderwoman.' For women who manage and/or design World Wide Web sites.

Systers

SYSTERS-ADMIN@SYSTEM.ORG

Use the word 'subscribe' in the message line. For professional women in computer science.

WebWomen-Tech

WEBWOMEN-TECH-REQUEST@NIESTU.COM

Use the word 'subscribe' in the subject line. For women who manage the technical side of Web sites.

Women_Discuss

MAJORDOMO@CONCORDIA.CA

Send the message, 'Subscribe WOMEN_DISCUSS.' For anyone interested in technical, social, political and cultural issues facing women in technology.

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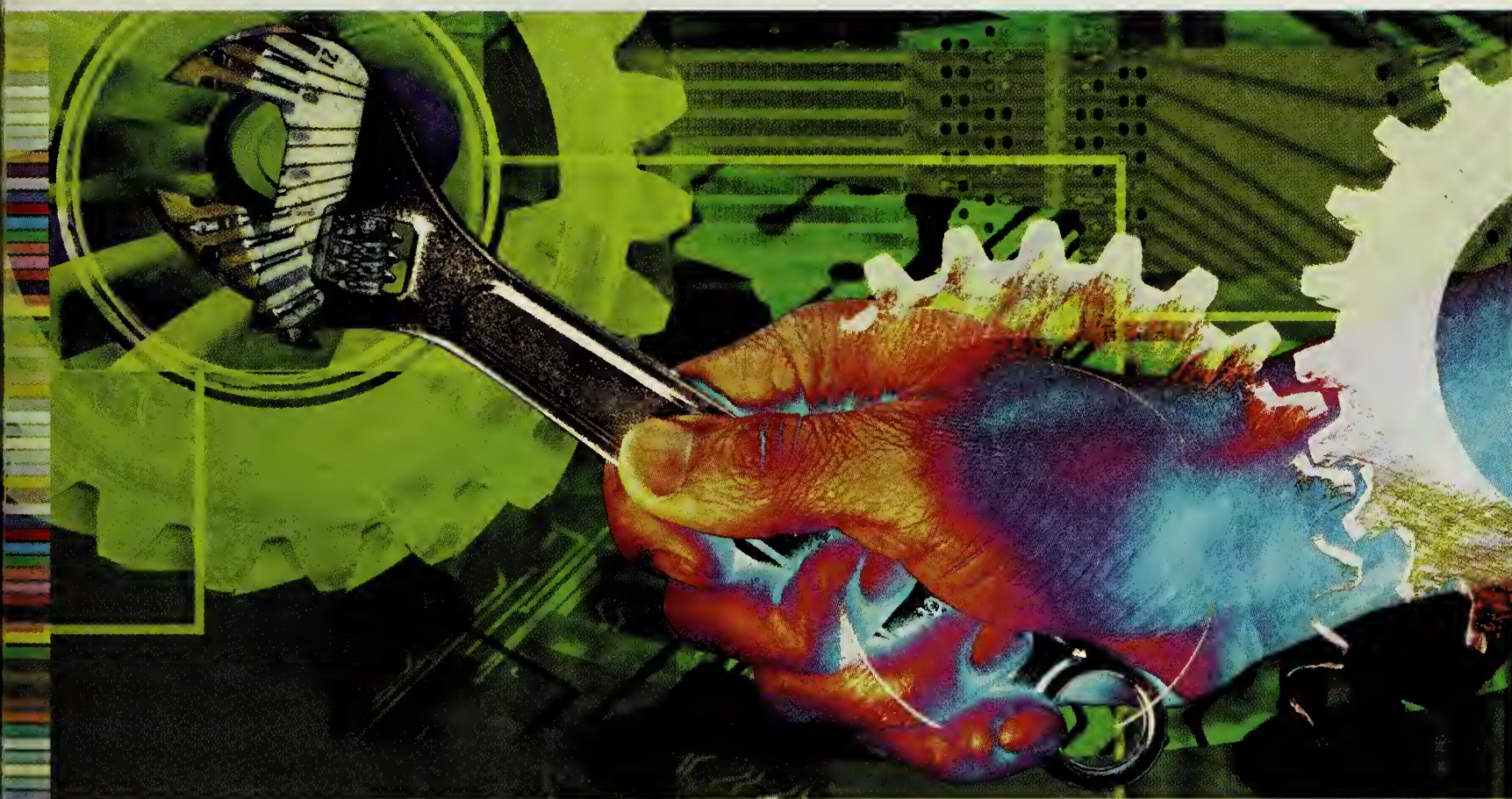
By Chris Staiti

IF YOU WANT TO INCITE PANIC IN A SYSTEMS DEVELOPMENT MANAGER, GO TO Federal Express Corp. and whisper the words "network failure" into the ear of Antonio Andrews. A network crash, an inconvenient yet inevitable event at most companies, would signal disaster for Federal Express, which guarantees overnight package delivery worldwide.

"This network does not go down. Not ever," says Andrews, who in six years with the Memphis-based company has never seen a complete network blowout. "I wish I had some wood to knock on, because if that ever happened to us, we'd make the evening news. The whole world would know about it. We'd be like America Online or AT&T."

To keep its network running absolutely, positively all the time, Feder-

IT's best



Eric Yang

al Express continually searches out the “best and the brightest” information systems employees, Andrews says. The skills it looks for are typical of other Best Places to Work companies.

Connection and integration have become the key words in IS hiring, a departure from just a few years ago, when applications development was king. Now that the applications are here, companies need to connect them, integrate the hardware, provide data access and find coherence in databases that are growing out of control.

Those searching for networking skills are talking not about NetWare but about infrastructure and compatibility at the physical

and middleware layers: The hottest hires are well-versed in fault isolation and problem correlation of hybrid networks, stemming from channel service unit/data service unit (CSU/DSU); routers, bridges and hubs; and LAN/WAN frames and packets.

“It’s easy to plug in a server and slap it on a network, but making it work is a different matter,” Andrews says. “A lot of products out there say they are optimized to run on a network, but they’re really not.”

To complete the connection, companies are looking for people who can pump some iron. Big iron. The sturdy mainframe, whose death has been foretold and retold for the past 15 years is once again on the forefront of IS.

CONTINUED on page 71



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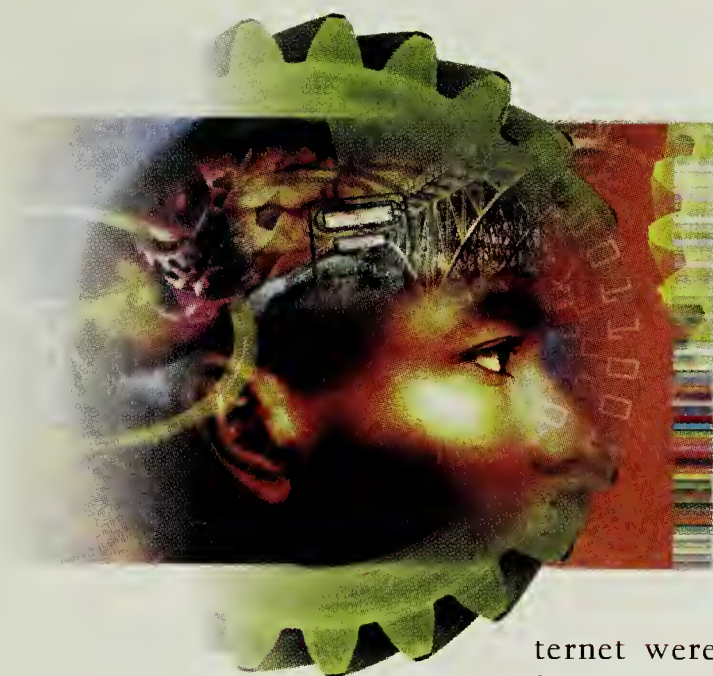
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CONTINUED from page 69

"We're seeing the Return of the Jedi, the Return of the Mainframe Programmer," says Diane Thom, human resources manager at Comerica, Inc., a bank headquartered in Auburn Hills, Mich.

For the next three years, mainframe Cobol programmers will be in demand, as companies scramble to add a couple more decimals to the date field before it changes to 00. Outside major metropolitan areas, companies can't find enough Cobol programmers, no matter how much they're offering to pay. "We've been able to find enough people to fill our positions, but the demand in this area is pretty high," says Karen Gallagher, human resources director for information technology at Barnett Technologies, Inc. in Jacksonville, Fla. "I wouldn't want to be in Maine trying to attract someone, though." Those with Cobol in their past would do well to brush up on those skills, she advises.

Mainframers of yesterday abandoned the platform in favor of the bright lights of the PC world, says Thom. "GUI design, laptops, the In-

ternet were the finger-snapping things to do. The vanilla Cobol programmer seemed staid, old-world."

What they didn't see was a takeoff in demand for mainframe skills; independent of the year 2000 snafu. Many of the Best Places to Work companies have a strong need for people skilled in MVS, Unix, C, CICS and message handling.

As the mainframers work on one end of client/server systems, the push is on at the other end for those with PC knowledge, especially C++ and object-oriented languages such as PowerBuilder. Here, too, the main focus is on integration and data access.

DATABASE DEMAND

Corporate databases have grown so large that businesses now need to get a handle on the data being served. Throughout the country, the call is on for those skilled in large-scale relational databases such as Sybase, Oracle, Informix and SQL. Barnett Technologies is a case in point. Besides processing its own accounts, the financial services company and its team of 900 IT employees also takes on the data processing duties of other

banks. "We're seeing a burgeoning need in data warehousing, distributed database support and mainframe relational database support," Gallagher says.

One skill that has taken employers by surprise is Lotus Notes. "Our recruiters say the biggest call is for anything having to do with the Lotus Notes environment," says Comerica's Thom. The company offers extensive training to employees, which Thom says gives Comerica an edge in attracting and keeping good people. "The training people receive is sometimes more important than salary," she says, although she adds that Comerica does pay competitive rates in

main draw in getting people to work here. Just buying someone is not going to retain them."

But not every company decides the same way in the train vs. buy debate. "If you retrain, you're very likely to lose the folks after you've trained them," says David Starr, CIO at ITT Corp., the New York City-based owner of Sheraton hotels, Caesars World casinos and Alcatel telecommunications company. "Somebody on the street can always offer 20% more to your people." (See *Yearn to Learn*, page 41.)

ITT maintains a cutting-edge shop of 1,400 people and claims to spend some \$5,000 per employee per year for training. But Starr says that, for the very hottest skills, he's more apt to hire technical consultants instead of permanent staff. "Skill sets are changing enormously fast. It took 10 years to go from mainframes to minis, five from minis to client/server, three from client/server to the Internet. We're starting to look at 18-month cycles," he says. "If you try to keep up with the very latest in every technical skill, you would need new people every 18 months."

ITT is indeed keeping up with technical skills. Its technical innovation makes it a fun place to work, says Starr, who says he's never at a loss for qualified applicants. ITT is working on an online sports-betting system, hoping to cash in on some of the estimated \$5 billion that was wagered on the Super Bowl last year. "And that doesn't include [regular season] foot-

CONTINUED on page 73

PACKAGE DEAL

Recruiters talk not of skills but of skill sets. The hottest:

Internet: HTML, Java, Visual Basic

Basic business skills: Communication, knowledge of business principles, international skills

Mainframe: Cobol, Unix, C, CICS

Networking: Experience with network infrastructure, fault isolation, hardware installation and setup, project management

Database: Informix, Oracle, Sybase, SQL, data warehousing

order to attract staff. "Money isn't the only motivator. Haven't we all, once in our careers, gone after the big money and lived to regret it?" She says Comerica, which annually spends \$900 per employee for training, "cross-fertilizes" wherever possible. "We let employees train in different skills that interest them, so they are cross-functional. This is a

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ball, hockey and baseball," says Starr.

Such an application requires some tricky programming and creative people. Sports betting is not legal in all states, so the system must be able to trace where a call is placed from. "We also need to verify that the person placing the call is over 18 years old and is actually the person they say they are. So, we're talking about some very sophisticated programming," Starr says.

ITT also produces Europe's version of the Yellow Pages, which it is now porting to the Internet. Top skills at ITT include Visual Basic, Java, HTML and the telecommunications know-how to link all the pieces together. So far,

WINDOWS NT RULES

Percentage of companies that offer training in the hot skills*

Windows NT	93%
Microsoft Visual Basic	79%
Microsoft SQL Server	75%
HTML	72%
Novell NetWare	72%
Oracle (RDBMS)	66%
LU6.2	42%

*Hot skills determined from the 1996 Computerworld Skills Survey

the company hasn't had any problems with staffing. "This is all state-of-the-art stuff. Nobody's doing what we're doing in those areas," says Starr. "This is a lot more fun than doing back-office processing in a bank."

Starr and others advise that business savvy should always be a part of an IT person's skill set. ITT, Starr says,

is more apt to hire business people than techies for its permanent staff. "You'll always need business people, those who understand the business and who speak English instead of 'technicalese.'"

Comerica's Thom concurs: "That's always going to be the case. We saw a definite migration to business skills about four or five years ago. ... Business savvy and the ability to communicate and interpret the customers' needs is what we're looking for. You can't do any of that unless you understand business concepts and the industry that your company is in."

Federal Express also seeks business savvy, says Andrews. "If a person has experience with multiple languages on multiple plat-

forms, that's a plus. But we also look for knowledge of accounting, finance and billing. These are the core parts of the business that won't go away."

Overall, new skills aren't hard to find among the technerati, who generally take the initiative in keeping their skills up to date. "Technical people, much more so than other workers, have a high level of intellectual capacity and curiosity," says Barnett's Gallagher. "They always want to play with the next new technology. We don't have to prod them to go to training classes, but it behooves us and other companies to provide it for them." □

Chris Staiti is a freelance writer based in Somerville, Mass.

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What goes around comes around



Katherine Lambert

By Candee Wilde

**Give your IS staff
an ideal work
environment, and
you've got a
dedicated and
inspired team**

Anita Cox is changing gears. That is, she's downshifting after four years of racing to deliver information systems to the nursing homes and related facilities that Integrated Health Services, Inc. was acquiring hand over fist. Now, as director of facilities systems, Cox is focused on helping to develop an integrated IT infrastructure to support the company's 1,110 field locations.

"If this company is in acquisition mode, we better be there for that," Cox says. "If the business focus shifts to operations, we have to be there for that, too, or we're not doing our job."

In 1993, IHS, in Owings Mills, Md., operated a chain of 43 nursing homes and had a familial IS team of 19 employees. Today, IHS has 200 nursing homes and 500 home-care branches. The company is attempting to create a new niche in health care, which it calls post-acute care. With the acquisitions, IHS revenues have skyrocketed from \$143 million to \$2.2 billion.

The IS culture reflected the growth-oriented focus of the corporation overall, according to Cox's boss, IHS Chief Information Officer Murray Mercier.

"Our company has been successful by making acquisitions, not by being the most effective operations company. We [IS] have been a mirror of the company," Mercier says. "Our IS team could chew up an acquisition in 10

minutes. But we're not so good at running operations — data centers, help desks, networking management."

Now that the business culture is shifting toward supporting ongoing operations, IS is focusing on building and maintaining the technical infrastructure to support these operations.

The notion that the work style, culture and goals of the IS department should match those of the company pervades Best Places companies.

Particularly during the past few years, a major goal of senior IS executives has become the alignment of their departments with the user departments they

support.

Rob Mains, health care analyst at Hartford, Conn.-based Advest Inc., a securities firm, says the idea

of one organization providing all of the health care services a patient would need after leaving a hospital — nursing home care, outpatient therapy or in-home care — is a concept that is "ahead of the market. If it works out for them, it will be a big winner."

Mercier pays close attention to the buzz on Wall Street, because that is critical to IHS's senior business executives. If Wall Street analysts tell Mercier they are concerned about earnings growing faster than cash flow, Mercier expects Cox to be implementing IS projects to improve billing and collections, thereby bolstering cash flow.

To keep directors focused on business issues, Mercier conducts quarterly off-site meetings, which sometimes have an unusual format (see story, page 83). He spends the day "preaching the same priorities, the same strategy and discussing the stock price. Those activities keep [the directors] from going down their own path without re-

CONTINUED on page 79



**Anita Cox's IS role
has changed to
reflect a shift
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culture at
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CONTINUED from page 77

spect to the greater good."

KNOWLEDGE IS KEY

Best Places companies also seem to have a tendency to pay minimal attention to job titles, instead focusing on each employee's expertise. At Maytag Corp., for example, IT training team leader Adrian McMillan was tapped to help develop a mission statement for the IS department "that would meld in with the corporate vision statement."

"At that point [about nine months ago], I was training as analyst. My title didn't really matter," McMillan says.

Maytag CIO Ed Wojciechowski says most IS projects for the appliance manufacturer are initiated by senior executives in the business units, rather than by IS, which puts together a project team to plan and execute the endeavor.

"The sponsoring v.p. talks to all levels of the project team," Wojciechowski explains. "They are equals among equals, and treat each other that way. Our people are able to see and converse with the executive group on a casual basis in the hallways."

To build an excellent IS department,

Wojciechowski says, one must begin by understanding the culture of the company. "Then you relate the structure of the IT organization to that culture."

Encouraging employees to grow in the organization is a key element of the corporate culture at Outboard Marine Corp. This focus on individual performance is reflected in the IS department. Senior systems analyst Susan Ercius, for example, has her sights set on a senior management position. Her supervisors are aware of that goal, and, as with other employees, a mentor/adviser has been formally assigned to help her achieve it.

Ercius and her bosses have discussed exactly which projects she'll work on this year, what she is expected to accomplish to meet her performance objectives and how her individual efforts

"I look forward to coming to work every day. Perhaps that's the best way to identify a good place to work."

— Deb Hemby,
Sonoco Products Co.

support OMC's enterprisewide goals. Ercius and her career coach discuss the benchmarks she should aim for in six months, two years and five years to stay on target for that executive post she's shooting for. These benchmarks also ensure her work supports corporate goals.

TRAITS IN COMMON

Several cultural traits are common to Best Places IT departments: Employees understand where the department is going and how their efforts support broader corporate goals, and they are encouraged to take risks and aren't afraid to make an honest mistake. They have enough authority and accept the responsibility needed to carry out their jobs creatively; the company invests in their training; and they know their successes will be acknowledged and rewarded.

"It's all mapped out for me," says Ercius, 37. She joined the Waukegan, Ill.-based marine engine and boat manufacturer 4½ years ago, after working with the company as a consultant. Based on the support OMC has given Ercius so far, she feels confident that senior executives will facilitate her ambition. "If you're eager to succeed, they're ready to give you the chance."

For a quick check on her progress, Ercius can glance at CIO Ed Frandle's bulletin board, where he posts employee "wins," such as praise from a user or the status of a key project. Or she could just ask Frandle directly, since he encourages risk taking and open communication throughout the 100-member IS department.

Ercius says she has faith in OMC's commitment to her future because executives have taken the time to explain the corporate strategy, the goals of IT and her role in achieving these objectives. In more concrete terms, OMC displays its support by paying the lion's share of her tuition for computer science courses she takes at a local university and, several years ago, with the fully paid maternity leave she took shortly after being hired.

To foster productivity and innovation, Frandle says he tries to give people



Paul Daggs

the freedom he has had, and has appreciated, during his career. "If the CIO is a trusting individual with confidence in his own abilities, he can create an atmosphere that allows the department to work more independently."

Right now, IT staffers are learning the "soft skills" necessary to work in self-directed teams, Frandle says. These skills include speaking clearly, listening, organizing a meeting and defining goals for each project.

Such efforts are part of a continuous improvement policy, called People Driven Quality (PDQ), that OMC adopted about two years ago. Ercius admires the program.

"They [management] are always trying to improve," Ercius says. "I like that. They don't just stand there."

INTERNAL MOTIVATOR

An ongoing commitment to improvement and change not only facilitates the success of a company, but it also motivates employees, according to Bernie Campbell, CIO of Sonoco Products Co., a maker of paper packaging products in Hartsville, S.C.

Since Sonoco's 80 IS employees began

"If the CIO is a trusting individual with confidence in his own abilities, he can create an atmosphere that allows the department to work more independently."

— Ed Frandle,
Outboard Marine Corp.

replacing mainframe systems with client/server tools, Campbell says he has noticed "an enthusiasm and excitement that wasn't quite the same when things were more mundane" and employees were focused on maintaining legacy systems.

Sonoco is also considering replacing legacy manufacturing and customer-service systems in the field with client/server and Web-enabled applications. "Our entire technology platform is changing, which is exciting for technical people, and there is a clear tie to the global packaging operations, which is a second motivator: We can see the contribution we are making to changing the

core business processes," Campbell explains.

Sonoco is somewhat unusual in that it is a Fortune 500 company with nearly 20,000 employees that is headquartered in a small, Southern town of about 12,000 residents. This juxtaposition makes Sonoco truly a family corporation. Campbell says various departments within the company exhibit similar cultures because so many of the people interact during off hours.

Deb Hemby, a systems analyst with responsibility for maintaining Sonoco's Web page and its intranet site, recently joined the IS department after 20 years in other departments at Sonoco.

"My family has worked here for over 50 years, altogether," Hemby says. "It's been like home for me."

She has found communication within the IS department particularly open and was impressed by a quarterly meeting attended by the entire staff.

"Bernie Campbell heads up [the monthly meeting]. He fills us in not only on IS information that affects our department but also the business strategy for Sonoco as a whole," Hemby explains. "We review Sonoco's financial situation, our focus and strategy."

Hemby says Sonoco also shows its commitment to employees through an annual awards ceremony that "everyone attends." This year, the Customer Satisfaction Through Excellence awards ceremony will be held in a local theater. "You get a good feeling from doing a big job and getting recognized for it," Hemby says.

When CIOs concentrate on developing and communicating a vision that supports their company's business strategy and giving employees access to new skills and the possibility of advancement, they are likely to inspire innovation and dedication among employees.

"I look forward to coming to work every day," Hemby says. "Perhaps that's the best way to identify a good place to work." □

CANDEE WILDE IS A FREELANCE WRITER BASED IN EASTON, CONN.

GOOD KARMA

Here are some steps CIOs can take to create a good IS work environment

I Make sure all IS employees understand the corporate strategy, the IT plan to support those goals and how their individual contributions can help the company execute its strategy.

I Encourage open, honest communication. Encourage people to suggest new ideas by listening when they talk and implementing the ideas that make sense.

I Recruit employees who fit the culture without attempting to hire people who are alike. Value diversity by hiring people who can contribute different points of view.

I Encourage people to take risks and to accept and acknowledge their mistakes, then quickly move on.

I Remind employees that although IT work is important, no one's life is at stake. Encourage people to laugh and have some fun.

I Give employees positive strokes and acknowledge their big successes publicly. Encourage them to recognize their own smaller "wins" each day.

I Show employees that you consider learning a never-ending process and that you value initiative by granting requests for training whenever possible.

I Exhibit a sense of pride and personal commitment in your work, and employees are likely to adopt a similar attitude. Coach and mentor employees through good times and bad times.

I Hire the best people, help them develop an emotional attachment to the organization by helping them understand their role in the big picture — and then stay out of their way.

— Candee Wilde

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Learning the ropes

Anita Cox is afraid of heights, so she didn't spend a long time standing on the tiny platform fixed to the top of a 30-foot telephone pole. She stretched her arms toward the trapeze swinging just out of reach and jumped.

Cox caught the trapeze — but with only one hand — so she let go and felt herself fall about 5 feet before the ropes that were attached to her harness stretched tight and broke her fall. On the ground, co-workers from the IS department at Integrated Health Services, Inc. held ropes that

supported her.

"I couldn't believe I did it," says Cox, director of facilities systems at Owings Mills, Md.-based IHS, a health-care provider. "I felt a sense of accomplishment when it was over, and I think I conquered some of my fears about heights."

This exercise, called The Leap of Faith, was part of a daylong "ropes course" at the Falls River Center in Charlottesville, Va. The program was designed to help business-people learn to work in teams, trust one another and meet

OFF THE BEATEN PATH



"It is a group trust experience that reinforced each person's sense that this is a good group of people to work with."

— Murray Mercier,
Integrated Health Services

personal challenges. IHS CIO Murray Mercier arranged for 24 IS managers and senior executives to go through the program last year.

"It is a group trust experience that reinforced each person's sense that this is a good group of people to work with," Mercier says.

There were many other exercises, including working together to make a perfect square with a long piece of rope lying on the ground in a field — while blindfolded — and getting the entire 24-member group over a 15-foot wall in less than 45 minutes.

"We were dealing with our fears and relying on other people to help get the job done," Cox recalls. □

— Candee Wilde

Philip Anderson



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The 100 Best Places by Industry

The following is a listing of the 100 Best Places to Work companies by industry.

Companies are ranked within each industry. Numbers in parentheses are the company's overall 100 Best Places to Work ranking. The industries shown are those reflected in the Fortune 1,000.

BANKING, INSURANCE AND FINANCIAL SERVICES

Capital One Services, Inc. (6)
 State Street Bank & Trust Co. (15)
 Household International, Inc. (17)
 Progressive Insurance Co. (19)
 Minnesota Mutual Life Insurance Co. (20)
 First Chicago NBD Corp. (21)
 John Hancock Financial Services, Inc. (30)
 ReliaStar Financial Corp. (32)
 Firststar Corp. (39)
 Liberty Financial Cos. (41)
 Barnett Technologies, Inc. (42)
 The Allstate Corp. (43)
 Comerica, Inc. (48)
 Comdisco, Inc. (49)
 The Chase Manhattan Corp. (53)
 Transatlantic Holdings, Inc. (68)
 UNUM Corp. (69)
 SunTrust Service Corp. (70)
 Mass Mutual Life Insurance Co. (73)
 First of America Bank Corp. (79)
 Principal Financial Group, Inc. (82)
 BankBoston (84)
 US Trust Corp. (90)
 Fleet Financial Group, Inc. (95)
 CIGNA Corp. (97)
 Key Services Corp. (98)
 PNC Bank Corp. (99)
 20th Century Industries, Inc. (100)

FOOD, BEVERAGE AND TOBACCO

Standard Commercial Corp. (18)
 Canandaigua Wine Co. (22)
 Adolph Coors Co. (38)
 McDonald's Corp. (54)
 Chiquita Brands International, Inc. (59)

CONSTRUCTION, BUILDING MATERIAL, METAL, AND GLASS

Corning, Inc. (12)
 Granite Construction (13)

Owens-Corning (81)
 Reynolds Metals Co. (96)

COMPUTER AND OFFICE EQUIPMENT, SOFTWARE AND INFORMATION SERVICES

Computer Associates International, Inc. (5)
 Xerox Corp. (10)
 Equifax, Inc. (28)
 Compaq Computer Corp. (29)
 3Com Corp. (46)
 Williams Cos. (64)

CONSUMER PRODUCTS, APPAREL, MEMBER SERVICES AND HOME APPLIANCES

Lands' End, Inc. (37)
 Levi Strauss & Co. (44)
 CUC International, Inc. (55)
 Avon Products, Inc. (65)
 Maytag Corp. (88)

ELECTRONICS AND ELECTRICAL EQUIPMENT

Soletron Corp. (3)
 AMP, Inc. (66)
 Honeywell, Inc. (78)

FOREST AND PAPER PRODUCTS

Union Camp Corp. (60)
 Sonoco Products Co. (62)
 International Paper Co. (86)

HEALTH CARE

Universal Health Services, Inc. (14)
 United HealthCare Corp. (31)
 Integrated Health Services, Inc. (36)

INDUSTRIAL MANUFACTURERS, OIL, GAS AND REFINING

Tosco Corp. (63)



Katherine Mahoney

TELECOMMUNICATIONS AND UTILITIES

BellSouth Corp. (23)
 InaCom Corp. (33)
 SCANA Corp. (34)
 Entergy Corp. (45)
 Pacific Bell (58)
 Frontier Corp. (71)
 Union Electric Co. (85)
 Brooklyn Union Gas Co. (87)
 Southern New England Telephone Co. (89)
 ITT Corp. (93)
 Kansas City Power & Light Co. (94)

TRANSPORTATION

Southwest Airlines Co. (7)
 J. B. Hunt Transport Services, Inc. (25)
 Delta Air Lines, Inc. (Transquest, Inc.) (27)
 Federal Express Corp. (56)
 CSX Corp. (72)
 United Parcel Service (74)
 Continental Airlines, Inc. (75)

WASTE MANAGEMENT

Browning-Ferris Industries, Inc. (83)

WHOLESALE AND RETAIL

Tech Data Corp. (2)
 The Home Depot, Inc. (4)
 Dayton Hudson Corp. (8)
 Wal-Mart Stores, Inc. (9)
 Costco Cos., Inc. (16)
 Sears, Roebuck & Co. (24)
 Anixter International, Inc. (26)
 Circuit City Stores, Inc. (40)
 Ace Hardware, Inc. (47)
 Consolidated Stores Corp. (50)
 Levitz Homemakers Furniture Corp. (52)
 Rite Aid Corp. (92)

Crown Central Petroleum Corp. (67)
 Harsco Corp. (76)

MOTOR VEHICLES, BOATS AND EQUIPMENT MANUFACTURERS

Fleetwood Enterprises, Inc. (57)
 Harley-Davidson Motor Co., Inc. (61)
 Caterpillar, Inc. (77)
 Outboard Marine Corp. (91)

PROFESSIONAL SERVICES, CONSULTING, PRINTING AND PUBLISHING

Price Waterhouse LLP (1)
 American Management Systems (11)
 Booz, Allen & Hamilton, Inc. (35)
 KPMG Peat Marwick LLP (51)
 Computer Task Group, Inc. (80)

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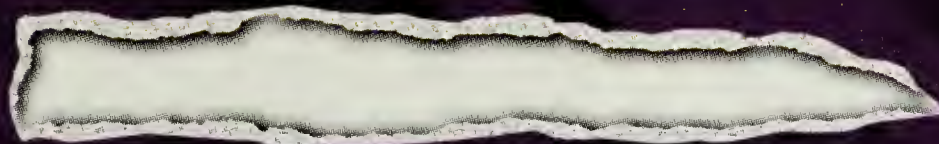
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